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January 23, 2012 Reference No. 017303

Ms. Vicki Katko
Department of Environmental Quality
Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 48201-1556

Dear Ms. Katko:

RE: Revised Site Summary Report
Former General Motors Company Vehicle Operations Property
Ypsilanti, Michigan

On July 8, 2011, Conestoga-Rovers and Associates submitted a Draft Site Summary Report (Report) on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), for the Former General Motors Company Vehicle Operations (CVO) Property located in Ypsilanti, Michigan (Site). This letter serves to address minor comments received from the Michigan Department of Environmental Quality (MDEQ) and documents the final submittal of this Report.

CRA received minor comments from the MDEQ related to this draft Report during a meeting on July 8, 2011 and by email on November 1, 2011. The comments and responses are provided below.

MDEQ Comment:
Request from John McCabe during July 8, 2011 meeting - Provide the original EPA ID (used when Part A application was filed) for the Site.

CRA Response:
The EPA ID used in the 1980 application for the RCRA Part A permit for the Willow Run Assembly Plant (which included the CVO property) was MID005356795. This EPA ID is not currently used for any activity at the CVO Site. Currently the CVO Site has large quantity generator status and uses EPA ID MIK468293311 for any waste shipments related to the environmental remediation work. A brief summary of the RCRA history is added to the Report text (Section 2.4.1).

MDEQ Comment:
Email from Vicki Katko on November 1, 2011 - Be precise when talking about the groundwater not in an aquifer (GWNIAA) on page 7 and beef up the discussion on Page 7.

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CRA Response:
Section 2.1 of the Site Summary Report has been updated to include additional details. A copy of the letter to MDEQ providing technical details on GWNIAA evaluation and a copy of the letter from MDEQ granting a GWNIAA determination for the upper sand unit is included in Appendix A of the Site Summary Report.

In addition to the MDEQ comments described above, CRA identified two revisions that were required.

- The analytical data for soil samples were not screened against the statewide default background levels in the draft Report. CRA has completed this screening and the following tables and figures have been updated

Table 3.4B	Summary of highest concentrations in soil and pathway by PAOC
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- The text of Appendix I (ISCO and ISEB Treatment of Volatile Organic Compounds, Laboratory Treatability Study) was inadvertently not included in the draft.

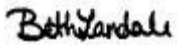
This letter documents the re-submittal of this Report as a final document. To save costs, the entire report will not be reprinted to remove "Draft for Review". On December 6, 2011, the MDEQ returned the hard copy of the draft Report to CRA. CRA has re-printed the text of the report to address the MDEQ comments and to remove the "Draft for Review" header. The additional revisions described in this letter have also been updated in the hard copy. The "Draft for Review" labels have not been removed from the tables, appendices or figures but are considered final for the purposes of this Report.

All of these changes are reflected in the updated electronic copy (PDF) of the report.

If you have any questions or concerns, please do not hesitate to contact us.

Yours truly,

Conestoga-Rovers & Associates



Beth Landale, P.E.

AB/sp/17/Det.
Encl.

cc: Grant Trigger, RACER
Dave Favero, RACER

Based on my knowledge of the conditions of the property described in the remedial action plan (RAP) and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Grant Trigger
Michigan Cleanup Manager
Revitalizing Auto Communities
Environmental Response Trust

1-10-12
Date:

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Prepared For:
Revitalizing Auto Communities Environmental Response (RACER) Trust

DISCLAIMER:
SOME FORMATTING CHANGES MAY HAVE OCCURRED WHEN THE ORIGINAL DOCUMENT WAS PRINTED TO PDF; HOWEVER, THE ORIGINAL CONTENT REMAINS UNCHANGED.

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JANUARY 2012
REF. NO. 017303 (8)

EXECUTIVE SUMMARY

Conestoga-Rovers & Associates, Inc. (CRA) was retained by Revitalizing Auto Communities Environmental Response Trust (RACER) to prepare this Site Summary Report (Report) for the Company Vehicle Operations (CVO) Property (Site) at the Former Willow Run Assembly Plant located in Ypsilanti, Michigan. This Report presents the current conditions at the Site and summarizes the interim response actions (IRAs) and environmental investigations completed to date.

Several Potential Areas of Concern (PAOC) have been identified based on previous Site activities and environmental investigations. Since the 1940's the Site has been owned and/or operated by Ford Motor Company, Kaiser-Frazer and General Motors Company (GM). In 2009, GM declared bankruptcy and consequently the Site is currently managed by RACER. Over the years, the Site has been used as a support, staging, and storage area for the manufacturing operations at the adjacent property to the west. Most recently, a garage on Site was used to maintain GM fleet vehicles. Tyler Pond, a dammed portion of Willow Run Creek, borders the Site to the north and east.

Historical filling practices at the Site have impacted soil and groundwater. Soil and groundwater data from the 1990's through 2010 were reviewed and screened against the Michigan Department of Environmental Quality (MDEQ) Part 201 generic cleanup criteria to identify whether hazardous constituents are present at levels that may pose an unacceptable risk. Volatile organic compounds (VOCs), specifically chlorinated VOCs (CVOCs), are the primary constituents of concern at the Site.

In 2004, stained soils and dense non-aqueous phase liquid (DNAPL) were observed in PAOC 18 along the southern bank of Tyler Pond. The main constituents detected in the DNAPL are trichloroethylene (TCE) (approximately 40%) and polychlorinated biphenyls (PCBs) (up to 1.5%). A sheet pile wall was installed in October 2004 to prevent DNAPL from migrating into Tyler Pond. Through the end of 2010, regular bailing/pumping has recovered approximately 1,450 gallons of DNAPL from the subsurface. In an effort to identify potential sources of the DNAPL and preferential pathways, electromagnetic surveys were completed at the Site. Test pitting activities were completed within several PAOCs to verify anomalies identified by the electromagnetic surveys. These test pits indicated that debris and refuse had been buried at the Site, primarily along the northern fenceline. Debris found in the test pits included stained soils, solidified paint sludge, ash, plastic, concrete cinders, glass, brick, wood, cardboard, metal shavings, scrap metal, steel wiring, wood blocks, concrete, cement bricks, black tar and drums or drum remnants.

Soils and groundwater at the Site are impacted with VOCs, CVOCs, semivolatile organic compounds (SVOCs), inorganics and/or PCBs. VOCs are the predominant constituents of concern is soil at the Site. The areas of most impacted soil are located along the northern fenceline, beneath the parking lot and along the bank of Tyler Pond. These areas coincide with areas where buried debris has been identified. VOCs, primarily CVOCs, are the predominant constituents of concern in groundwater at the Site. There are two areas of significantly elevated concentrations in groundwater: near the Haulaway Building (PAOC 23) and near the sheetpile wall (PAOC 18). SVOCs and inorganics are present but are not as widespread or at levels as elevated as the VOCs. Soil gas and indoor air samples from the Haulaway Building indicate that VOC vapors are migrating into the building.

Since 2001, the following IRAs have been completed at the Site: in-situ groundwater treatment (chemical oxidation and enhanced bioremediation); soil removal; groundwater recovery, treatment and discharge; installation of a sheet pile wall; and DNAPL recovery. Groundwater monitoring has been completed on a regular basis.

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LIST OF ACRONYMS

BBL	Blasland, Bouck & Lee
bgs	Below Ground Surface
CAT	Complete Auto Transit
COC	Constituent of Concern
CRA	Conestoga-Rovers & Associates
CVO	Company Vehicle Operations
CVOCs	Chlorinated Volatile Organic Compounds
DCE	Dichloroethylene
DEC	Description of Existing Conditions
DNAPL	Dense Non-Aqueous Phase Liquid
EM	Electromagnetic
EOC	Extent of Contamination
ER	Electrical Resistivity
GM	General Motors Corporation
GM LLC	General Motors LLC
GSI	Groundwater Surface Water Interface
GSIPC	Groundwater-Surface Water Interface Protection Criteria
GWNIAA	Groundwater Not in an Aquifer
IAC	Indoor Air Criteria
IRA	Interim Response Action
ISCO	In-situ Chemical Oxidation
ISEB	In-situ Enhanced Biodegradation
LUST	Leaking Underground Storage Tank
MDEQ	Michigan Department of Environmental Quality
MLC	Motors Liquidation Company
NAPL	Non-Aqueous Phase Liquid
NOM	Notice of Migration
PAOC	Potential Areas of Concern
PCBs	Polychlorinated Biphenyls
RACER	Revitalizing Auto Communities Environmental Response Trust
SGC	Soil Gas Criteria
Site	Willow Run Assembly Plant
SVOCs	Semi-Volatile Organic Compounds
TCE	Trichloroethylene
TCL	Target Compound List
UST	Underground Storage Tank
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
WRBC	Willow Run Business Center

1.0 INTRODUCTION

Conestoga-Rovers & Associates, Inc. (CRA) has prepared this Site Summary Report (Report) for the former General Motors Company Vehicle Operations (CVO) property (Site) at the former Willow Run Assembly Plant located in Ypsilanti, Michigan. Figure 1.1 presents the Site location. The former Willow Run Assembly Plant property currently encompasses the Willow Run Business Center (WRBC) and the Site.

The WRBC was sold by General Motors Corporation (GM) to In Site Real Estate in 1997, while GM retained ownership of CVO. GM operated the Site until the end of 2010.

The CVO portion of the former Willow Run Assembly Plant property is approximately 22 acres and was originally the "back 40" of the assembly plant property. The Site remained undeveloped until the late 1950's. The current Haulaway Building was constructed between 1956 and 1963, based on aerial photographs of the Site. Following the construction of the building, Haulaway Building was used as an office and maintenance garage, and the remainder of the Site for parking and storage of vehicles.

As a result of GM's bankruptcy, certain operating assets of GM were sold on July 10, 2009 to a newly formed company which is now known as General Motors LLC (GM LLC). Existing, non-conforming assets remained the property of GM, which was renamed Motors Liquidation Company (MLC). On October 20, 2010, MLC entered into a settlement agreement with federal and state governmental authorities regarding MLC's environmental obligations at its owned real property, including this Site (Settlement Agreement). On March 3, 2011, this Settlement Agreement was approved by the United States Bankruptcy Court for the Southern District of New York as part of MLC's Chapter 11 Plan of Liquidation. According to the terms of the Settlement Agreement, MLC transferred its interests in this Site to the Revitalizing Auto Communities Environmental Response Trust (RACER) on March 31, 2011, the Effective Date of MLC's Chapter 11 Plan of Liquidation. As such, the Site is now operated by RACER and this documentation of the current and historical conditions has been prepared on RACER's behalf.

1.1 PURPOSE

The purpose of this Report is to:

- Describe investigations and interim response actions (IRA) completed to date at the Site

- Evaluate existing data with respect to applicable criteria
- Identify whether hazardous constituents are present at levels that may pose an unacceptable risk

1.2 POTENTIAL AREAS OF CONCERN

Within the Site, there are several locations designated as Potential Areas of Concern (PAOCs). Some of these areas were identified by Blasland, Bouck & Lee (BBL) in the Description of Existing Conditions (DEC) Report in 1997 (BBL, 1997) which addressed the broader Willow Run Assembly Plant property. Several additional PAOCs have been identified since the DEC was prepared.

Generally, the work plans and associated investigation activities completed to date were organized by PAOC. The PAOC locations and descriptions as defined in the Extent of Contamination (EOC) Work Plan (CRA, 2003), EOC Addendum No. 1 (CRA, 2004a), EOC Addendum No. 2 (CRA, 2005), and PAOC 18 Delineation Work Plan (CRA, 2004b) are presented on Figure 1.2 and listed below.

- PAOC 18 – Kaiser-Frazer Dump Area
- PAOC 19 – CVO Property
- PAOC 20 – Former Complete Auto Transit (CAT) Site Plume
- PAOC 21 – Sink Hole Waste Area
- PAOC 22 – Paint Sludge Area
- PAOC 23 – 1949 Fill Area
- PAOC 24 – 1952 Pits

Based on the results of the investigations, it became apparent that some PAOC boundaries needed to be redefined to allow for like impacts and sources to be evaluated and addressed together. The following list redefines the PAOCs at the Site. Figure 1.3 presents the redefined PAOC boundaries.

- PAOC 18 – Former Outfall 12 non-aqueous phase liquid (NAPL) Area – soil, NAPL and debris within and around the sheetpile area near former Outfall 12. This PAOC no longer includes the area west of the sheetpile area (see PAOC 29).

- PAOC 19 – CVO Property Groundwater – impacted groundwater throughout the Site.
- PAOC 20 – Former CAT Site Plume – no change.
- Former PAOC 21 – rescinded (was incorporated into PAOC 29).
- Former PAOC 22 – rescinded (was incorporated into PAOC 29).
- PAOC 23 – 1949 Fill Area – soil, NAPL, debris, and volatilization to indoor air evaluation near the Haulaway Building.
- PAOC 24 – 1952 Pits – no change.
- PAOC 29 – Kaiser-Frazer Dump Area – soil and debris west of the sheetpile wall area (PAOC 18) to the WRBC property boundary. This now encompasses previous PAOCs 21 and 22.

The investigation results discussed in this Report are organized by the redefined PAOCs.

PAOCs 1 through 17 and 25 through 28 are located on the WRBC property and therefore not discussed in this Report.

1.2.1 UNDERGROUND STORAGE TANKS (UST)

The Site historically housed five underground storage tanks (UST), which are described in Table 1.1. Table 1.1 was prepared using current information from the Michigan Department of Environmental Quality's (MDEQ) UST database supplemented with historic investigation reports for the Site. The table also identifies the locations of the USTs with regards to specific PAOCs identified in this Report.

MDEQ's leaking underground storage tank (LUST) database indicated that the Site is listed as having one release (Leak C-0655-94) from former USTs. This LUST case was closed in December 2001, when the MDEQ accepted the CAT Site Closure Report (BBL, 2001). A copy of the MDEQ approval letter is provided in Appendix A. Table 1.1 identifies which former USTs are associated with the open LUST case.

There are no current USTs at the Site.

1.3 REPORT ORGANIZATION

The Report is organized in the following sections:

Section 1	Introduction
Section 2	Site Background
Section 3	Summary of Environmental Investigation Results
Section 4	Summary of Response Actions
Section 5	References

2.0 SITE BACKGROUND

2.1 LOCATION

The Site is located on the former Willow Run Assembly Plant property, which encompasses the WRBC, as well as the CVO property. The Site is bordered on the north and east by Tyler Pond, by WRBC to the west, and Tyler Road and the Fons Landfill abuts the southern Site boundary.

2.2 SITE GEOLOGY

The general geology at the Site consists of five basic units. These units and their thickness are as follows, proceeding downward from land surface:

Unit Name	Unit Thickness (Range)
surficial fill	0 to 11.5 feet
upper sand unit	8 to 15 feet
lacustrine clay unit	50 to 85 feet
lower sand unit [a]	8 to 28 feet
bedrock unit (Antrim Shale) [b]	> 100 feet

[a] Thickness range based on investigations on the adjacent Fons/Old Wayne property
[b] Thickness range based on published literature in the Hydrogeologic Atlas of Michigan

Based on regional and local geology (including well logs from adjacent properties) the upper sand unit, the lacustrine clay, the lower sand unit, and the Antrim Shale are present across the entire Site.

The composition of uppermost two units varies across the Site. The fill unit varies from fill sands and clays to construction debris and historical waste material. The upper sand unit generally consists of fine to medium grained sands with silts and gravels. Based on off-Site investigation data, the lower sand unit in the vicinity of the Site is predominately a silty sand.

Soil samples were collected from the confining clay unit at several locations throughout the Site for geotechnical testing during the CRA 2003 investigations. Based on off-Site laboratory testing, the typical vertical permeability of the confining clay unit ranged from 1.26×10^{-8} to 4.31×10^{-8} centimeters per second. Table 2.1 summarizes the lab reported permeability/hydraulic conductivity of the confining clay layer at six locations.

Soil samples were collected from the saturated sands and surficial clay for grain size analysis. Table 2.2 summarizes the results.

The confining layer is a lacustrine clay unit that separates the upper and lower sand units. Stratigraphic logs from the three deep soil borings completed at the Site indicate that this clay unit is at least 30 feet thick. A deep boring completed adjacent to the Site indicates the clay extends to an elevation of approximately 618 feet above mean sea level and is 84 feet thick. The soil boring logs from these locations do not identify any water bearing horizons within the clay rich layer.

Boring logs from the CRA investigations were used to create stratigraphic cross sections throughout the Site. Figure 2.1 presents the locations of the cross sections, and Figures 2.2 through 2.6 present the cross sections. Stratigraphic logs are presented in Appendix B.

In addition to the traditional cross sections prepared using existing soil boring logs, an Electrical Resistivity (ER) survey was completed at the PAOC 18 NAPL Area to map the top of clay surface and identify "bowls" in the clay where dense non-aqueous phase liquid (DNAPL) may pool. Figures 2.7 and 2.8 present the three-dimensional visualizations that were generated from this data. The ER survey is described in more detail in Section 3.

2.3 SITE HYDROGEOLOGY

Two of the five units at the Site are considered water bearing (the upper and lower sand units) and two others are considered aquitards/aquicludes (the lacustrine clay and the Antrim Shale). The upper sand unit is the subject of investigation at the Site.

The upper sand unit contains limited groundwater that is typically encountered in unconfined conditions at very shallow depths (i.e., 8 to 10 feet). The saturated thickness varies with seasonal precipitation with a typical maximum thickness of approximately 8 feet. Due to engineering activities that dammed Willow Run Creek (creating Tyler Pond) and construction activities that built compacted clay banks along the edge of Tyler Pond, the horizontal hydraulic gradient of groundwater in the upper sand unit at the CVO Site is relatively flat. The horizontal hydraulic gradients range between 0.005 and 0.015 feet per foot. Based on 1999 slug tests conducted in wells screened in the upper sand unit the estimated hydraulic conductivity ranged from 4.31×10^{-8} (MW-12) to 1.12×10^{-2} (MW-14) centimeters per second.

The MDEQ granted a groundwater not in an aquifer (GWNIAA) determination for the upper sand unit (letter from MDEQ to Mr. Ken Richards dated September 1, 2004). The GWNIAA classification is based on documentation that demonstrated that an insignificant amount of water is present within the upper sand unit at a Site. The GWNIAA classification for the upper sand unit is also based on documentation that demonstrates that shallow groundwater, where present, is laterally discontinuous and not in hydraulic communication with groundwater in an aquifer. The hydrogeologic conditions at the Site provide evidence that groundwater is of very low yield, and not significantly connected to aquifers. In addition, adjacent properties (Willow Run Creek site and the Fons/Old Wayne site) exhibit groundwater conditions of similar character and have been acknowledged by the state to not be an aquifers. A copy of the letter to the MDEQ providing technical details and evidence of the hydrologic conditions along with a copy of the GWNIAA approval by MDEQ is included in Appendix A.

Following a lacustrine clay aquiclude that is approximately 50 to 85 feet thick, the lower sand unit contains limited groundwater that is encountered under semi-confined conditions at depths approximately 80 feet below grade. The saturated thickness near the Site is up to 8 feet. Previous correspondence to the MDEQ has demonstrated that the saturated conditions of the lower sand unit near the Site were classified as GWNIAA (CRA, 1995).

A lacustrine clay unit occurs between the upper and lower sand units. This unit is a poor source of groundwater, exhibits low hydraulic conductivity and acts as an aquitard/aquiclude for the lower sand unit. No water bearing horizons have been observed in the clay-rich deposits. Geotechnical samples collected using Shelby tubes identified an average permeability of the clay layer of 2.60×10^{-8} centimeters per second. This result is consistent with published values of glacial till and clay (Freeze and Cherry, 1979).

The Antrim Shale is not a water bearing unit but the underlying limestone and dolomite bedrock formations of the Traverse Group are considered bedrock aquifers. Groundwater quality in these bedrock aquifers range from potable to highly mineralized depending on the depth of the source. Greater depths generally yield greater mineralized water.

Storm water runoff from paved areas and building roofs are collected by a storm water sewer system that flows into Tyler Pond through a series of outfalls. Outfall 12 was abandoned during the construction of the PAOC 18 sheetpile wall in 2004.

Subsurface groundwater flow conditions at the Site are influenced by utility corridors, various fill areas, and Tyler Pond which is a discharge boundary for part of the groundwater unit. Subsurface utilities include storm sewers, sanitary sewers and a former sludge line. A hydraulic divide exists across the central portion of the property, generally running parallel to Tyler Pond. Groundwater to the south/southwest of the divide flows to the south/southeast, while groundwater to the north/northeast of the divide flows towards Tyler Pond. A groundwater contour map was generated from groundwater levels collected on October 26, 2010 (Figure 2.9). The October 2010 groundwater contour map is consistent with historical groundwater contour maps.

The Fons landfill is located south of Tyler Road adjacent to the CVO property. It was constructed with a clay wall surrounding the landfill to prevent leachate from migrating beyond its borders. This wall also prevents the groundwater migrating south of the CVO property from impacting the adjacent property and directs the groundwater southeast towards Willow Run Creek, south of Tyler Pond dam.

It is apparent from groundwater monitoring data that a preferential pathway for groundwater movement exists along the southern property boundary. The ER results along the southern property boundary identified areas with elevated ER near known subsurface utilities. There were also numerous vertical anomalies, which are characterized by elevated resistivity at depths which may indicate hydraulically permeable zones for groundwater flow. These areas may explain the preferential pathway along the southern property boundaries. The ER surveys are further discussed in Section 3.

2.4 HISTORY

The WRBC and CVO areas both share a similar history because the areas were previously one property, the Former Willow Run Assembly Plant.

Prior to 1940, the current Willow Run site was agricultural land purchased by the Ford Motor Company. In 1941 the United States Defense Plant Corporation of America purchased the Willow Run facility from Ford and directed Ford to construct and operate a bomber production plant. Along with the plant, Ford constructed various support buildings, an airstrip and a wastewater treatment plant. Military aircraft were manufactured at the plant from 1942 to 1945.

The Kaiser-Frazer Company (Kaiser-Frazer) leased the bomber plant and CVO area from the War Asset Administration in November 1945 and purchased the facility in December

1948. Kaiser-Frazer refurbished the plant to produce automobiles. A dam was built sometime between 1941 and 1942 at Tyler Road, creating Tyler Pond. This pond served as the discharge point for wastewater treatment operations associated with the airport and the bomber production facility. Kaiser-Frazer is thought to have constructed an administration building to house design and engineering facilities. Kaiser-Frazer owned the property until its sale to GM in December 1954.

The original building at the Willow Run Assembly Plant was used by GM as a parts storage warehouse until 1955. In 1956, light truck assembly began at the plant. Between 1958 and 1971, the Fisher body division and the Chevrolet motor division conducted building expansions at the Site.

From 1956 to July 1993, operations were typical of an automotive assembly plant. These operations included:

- The assembly of sheet metal stampings into a complete body by welding solder applications, metal finishing, and washing
- Body painting electro-deposition painting operations, top coating
- Assembly of body interior equipment using mechanical fasteners, sealers and adhesives for final assembly

Support operations included plant equipment maintenance and cleaning along with industrial wastewater pretreatment prior to discharge to Ypsilanti County Utility Authority. Following assembly operations, vehicles were distributed to dealers by both truck and railway systems. Production operations ceased in July of 1993 and deactivation and decommissioning operations proceeded to prepare the facility for an eventual sale in 1997. GM retained ownership of the CVO property, which was used to store and maintain GM owned company vehicles until 2010.

2.4.1 RCRA HISTORY

GM submitted a RCRA Part A Permit Application for the Former Willow Run Assembly Plant on November 17, 1980. This was submitted as a protective filing as the RCRA requirements and applicability were not fully understood at that time. On August 20, 1984, GM requested to withdraw the previously submitted Part A permit application, as they determined that the treatment, storage, and disposal facility designation was not appropriate (BBL, 1997). The U.S. EPA denied this request on September 20, 1984 indicating that the container units used to store hazardous waste for more than 90 days

needed to undergo RCRA closure (BBL, 1997). A revised notification was submitted on October 24, 1984, that amended the site status to generator only, and included a supplement that described the facilities which were included in the November 1980 application that were not regulated under RCRA or that were planned to be closed. A copy of the RCRA Part A notification and revised notification obtained from the MDEQ files are included in Appendix A.

The EPA ID associated with the November 1980 RCRA Part A permit application and subsequent waste activities for the Willow Run Assembly Plant (which included the CVO property) is MID005356795. This EPA ID is not currently used for any activity at the CVO Site. Currently the CVO Site has large quantity generator status and uses EPA ID MIK468293311 for any waste shipments related to the environmental remediation work.

2.4.2 HISTORICAL AERIAL PHOTOGRAPH REVIEW

Several aerial photographs of the Site from 1940 to the present were reviewed. The photographs reviewed were from 1940, 1949, 1952, 1955, 1956, 1963, 1969, 1978, 1980, 1985, 1990, 1994, 1995, and 1998. Copies of these aerials are presented in Appendix C.

The 1949 aerial photographs show an excavated area along with material piles just northeast of where the Haulaway building now stands. These photos show excavated pits dark in color suggesting the presence of liquids. There is also evidence of filling along the banks of Tyler Pond. These activities increased in scope as evidenced by historical photos from 1949 through 1952. In addition, the 1952 photo shows two more excavated pits due west of the original pit in the 1949 photo. These pits are also dark in color suggesting the presence of liquids. These activities continued into 1955. The 1955 photo shows a smaller pit than that seen in the 1949 photo, the cause of which could be attributed to filling or lower liquid levels.

By 1963, the area south of Tyler Pond shows significant development. A large portion of area west of a line running south from the pipe trestle crossing Tyler Pond is paved. East of this line, the area south of Tyler Pond remains unpaved but is used as a storage area for transport trailers. In 1963, this area is paved.

Aerial photographs from the 1980's reveal a second trestle crossing Tyler Pond along with soil disturbances near it, the north side of the parking area also shows similar disturbances. Both of these disturbances are thought to be the result of sewer or storm water pipe installations. The next significant changes to the site occur in 1998. The

north and east sides of the parking area include a corridor along the south shore of Tyler Pond. Several areas south of the pond were cleared of vegetation.

Table 2.3 summarizes the Site ownership, operations and significant development as identified by aerial photos.

2.4.3 ENVIRONMENTAL INVESTIGATION

Prior to 2001, several environmental consultants conducted limited investigations at the Site. BBL prepared a DEC in 1997 that summarized their investigations completed at the former WRBC, including the CVO area. Data contained in the DEC has been included in CRA's current Site database and will therefore be included in databox figures presented in Section 3 of this Report.

CRA became involved in the Site and began groundwater treatment activities in 2001 and 2002 to address impacted groundwater conditions. In spite of these treatments, groundwater monitoring data indicated that elevated constituent concentrations remained and further investigation was needed to fully understand hydrogeologic conditions and fate and transport mechanisms so additional response efforts could be considered.

Several investigations were completed between 2003 and 2006 to locate source areas at the Site and determine the hydrogeologic conditions. Work plans were prepared and submitted to the MDEQ for each investigation. These work plans included the EOC Work Plan (CRA, 2003a), the EOC Work Plan Addendum No. 1 (CRA, 2004a), PAOC 18 Delineation Work Plan Memorandum (CRA, 2004b), the EOC Work Plan Addendum No. 2 (CRA, 2005a) and the Site-Specific Indoor Air Sampling Protocol PAOC 23 Haulaway Building Company Vehicle Operations Area (CRA, 2006).

These investigations characterized:

- Groundwater flow patterns and seasonal variations
- Soil stratigraphy
- Potential waste burial locations and the extent of materials and debris
- Storm water and groundwater discharge from the Site to Tyler Pond
- The potential for indoor volatilization for human exposure at the Haulaway Building
- Contaminant plume migration

- DNAPL, soil and groundwater throughout the Site
- Effectiveness of reductive dechlorination of chlorinated volatile organic compounds (CVOCs) at the groundwater surface water interface using soy lactate injections

In addition, regular groundwater sampling (quarterly, semi-annually & annually) has been conducted over the past ten years at the Site.

2.4.4 RESPONSE ACTIONS CONDUCTED OR EVALUATED

Several IRAs have been completed at the Site. Prior to CRA's involvement in 2001, a 1994 surficial refuse and drum remnant removal was completed by Weston along the south bank of Tyler Pond. The LUST at the former CAT site (PAOC 20) was remediated and the LUST was closed by the MDEQ. In addition, a substantial dredging remediation project was completed at Tyler Pond between 1995 and 1999 to remove polychlorinated biphenyl (PCB) contaminated sediments.

Since CRA's involvement in 2001, several additional IRA have been completed including chemical oxidation, recovery of free product, soil removal, installation of a french drain and sheetpile wall, and enhanced reductive dechlorination. Additional details of these activities are presented in Section 4.

3.0 SUMMARY OF ENVIRONMENTAL INVESTIGATION RESULTS

This section presents a discussion and rationale for the screening criteria used in evaluating data collected at the Site. It also presents the results of investigations completed to date at the Site.

3.1 SCREENING CRITERIA

The soil and groundwater results were compared to Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended), and published under Remediation and Redevelopment Operational Memorandum No. 1, Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, as updated March 25, 2011 by the Remediation Division. On-Site data was compared to applicable Part 201 non-residential soil and groundwater criteria. These criteria are appropriate based on current and expected future land use at the Site.

For the evaluation of groundwater near the property boundary, residential criteria was used as a screening tool to determine if any off-Site migration above generic criteria was occurring and if any reporting to the MDEQ was required.

Not all exposure pathways at the Site are present; therefore, evaluation of data against the screening criteria associated with all pathways for all areas at the Site is not needed to reach conclusions as to further response action needs for some pathways and areas. The majority of the Site is covered by either buildings or paved parking surface (asphalt or concrete). The non-paved area, namely the bank of the Tyler Pond, is covered with grasses and thick brush. The relevant screening criteria associated with soil and groundwater contamination for each PAOC based on current Site use are summarized on Table 3.1.

3.1.1 FACILITY SPECIFIC GENERIC GSI CRITERIA

Generic groundwater surface water interface (GSI) and GSI protection criteria (GSIPC) for several constituents are dependent upon on the pH and/or hardness of the receiving surface water. The selected constituents are hazardous substances footnoted {G} as listed in the Part 201 Generic Cleanup Criteria and Screening Levels tables. Footnote G of the Part 201 criteria tables provides a spreadsheet for use in calculating the GSI criterion for the "G" footnoted constituents. If pH &/or hardness data of the local

receiving surface water, rather than state-wide "default" values, are used to determine the criteria, the calculated values are considered "Facility-specific Generic" values. For this Site, the pH and hardness of the local receiving surface water was used to determine "Facility-specific Generic" GSI and GSIPC values.

Nine surface water samples were collected from Tyler Pond in June 2005 and were submitted for laboratory analysis of pH and water hardness. As per conversations with MDEQ, the surface water samples were collected across the pond at three different locations (Outfall 11, Catwalks, and Outfall 14) at approximately 25%, 50%, and 75% of width across the pond. The samples were collected between 6 to 12 inches from the bottom of the pond to ensure that the sediments were not disturbed. The average pH and water hardness values were 7.25 and 391.25 mg $CaCO_3$/L, respectively. These values were entered into the spreadsheet to determine the "Facility–specific Generic" GSI criteria. The input parameters (i.e. pH and hardness) applied in the development of the Facility-specific Generic GSI criteria, the completed MDEQ spreadsheet calculations and a Figure identifying the approximate sampling locations are presented in Appendix D.

3.1.2 SITE SPECIFIC SOIL GAS AND INDOOR AIR

In 2005, CRA developed Site-specific soil gas criteria (SGC) to evaluate whether the volatile organic compounds (VOCs) detected in soil gas posed potential human health risks above acceptable levels through an industrial indoor air inhalation exposure scenario. The Site-specific SGC were developed using the Johnson and Ettinger (1991) model (J&E Model) as adopted by the United States Environmental Protection Agency (USEPA) (USEPA, 2003, 2004). The Site-specific SGC were developed following the approach outlined in USEPA's *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (USEPA, 2002). Site-specific risk based target indoor air concentrations were developed based on a target risk level of 1×10^{-5} for carcinogenic compounds and target hazard quotient of 1.0 for non-carcinogenic compounds. Appendix E presents a more detailed account of the development of these criteria. These Site-specific criteria were used to evaluate data collected at the time of the investigations in 2005 and 2006.

In 2009, the MDEQ Remediation and Redevelopment Division published vapor intrusion indoor air criteria (IAC) and SGC guidance. These 2009 generic guidance criteria were used to screen existing data in this Report.

3.1.3 CONSTITUENTS OF CONCERN

Databox figures were prepared to present soil and groundwater data for constituents of concern (COCs) for that matrix. COCs for soil and groundwater were defined as any constituent that exceeded residential criteria anywhere on Site for that matrix. Only COCs are shown in the databoxes. If soil or groundwater samples from a location were never analyzed for a COC, that COC is not shown in the databox for that location. Tables 3.2A and 3.2B list the COCs by matrix and the screening criteria used in this Report.

3.2 PAOC SUMMARY

PAOCs were identified by BBL in the DEC in 1997 (BBL, 1997) and additional PAOCs have been identified by CRA since the DEC was prepared. Table 3.3 presents a description of each PAOC, summarizes investigation and response activities completed at each PAOC, and provides references to the tables and figures where the results are presented in this Report.

3.3 INVESTIGATION APPROACH AND RESULTS

The following subsections describe the methods used to investigate each matrix at the Site and references the tables, figures or appendices where the results of these investigations are presented.

3.3.1 SOIL AND GROUNDWATER DATA

Soil and groundwater analytical data are presented on databox figures, Figures 3.1 through 3.22. The Site was divided into four quadrants (Northwest, Northeast, Southwest, and Southeast) for presenting the Sitewide groundwater data. The soil data is presented by PAOC. In addition, to decrease the sizes of the databoxes, the COCs list was separated to present VOCs and PCBs on one figure, semi-volatile organic compounds (SVOCs) on a second, and inorganics on a third figure, broken down by quadrant, or PAOC.

As discussed in Section 2.4.2, data contained in the DEC (BBL, 1997) has been included in CRA's current Site database and are included, where applicable, in databox figures presented this Section.

Stratigraphic logs and monitoring well construction diagrams are presented in Appendix B. Analytical summary tables for each PAOC compared against the screening criteria are presented in Appendix F.

Tables 3.4A and 3.4B present a review of the constituents that exceed each screening criteria by PAOC and the highest concentration detected for those constituents in groundwater and soil, respectively.

Several Notices of Migrations (NOM) have been submitted to the MDEQ and neighboring properties due to elevated concentrations of VOCs in groundwater at the property boundary since 2003.

Soils are impacted by VOCs, SVOCs, PCBs and inorganics at the Site. VOCs are the predominant constituents of concern. The most impacted areas are located along the northern fenceline, both in the parking lot and along the bank of Tyler Pond. These areas coincide with areas where buried debris has been identified. There are some elevated levels near the Haulaway Building, again associated with debris has been observed.

VOCs, primarily CVOCs, are predominantly the concern in groundwater at the Site. There are two areas of significant elevated concentrations; near the Haulaway Building (PAOC 23), and near the sheetpile wall (PAOC 18). CVOC impacts are present over the remainder of the Site as well. SVOCs and inorganics are present but are not as widespread or at the same levels as the VOCs.

3.3.2 NAPL DATA

In April and May 2004, DNAPL was identified in PAOC 18. NAPL delineation was conducted using soil borings, monitoring wells, Sudan IV (a NAPL detection product) and MIP technology. Based on the investigations completed to date, the source of the DNAPL appears to be historic land disposal of wastes at the Site. This includes buried drums as well as a mixed refuse layer at approximately five feet below ground surface (bgs) in PAOC 18. This refuse layer is suspected of being the source of the DNAPL. Figure 3.23 presents the extent of DNAPL and buried debris layer in the vicinity of PAOC 18. The main constituents detected in the DNAPL are trichloroethylene (TCE) (approximately 40%) and PCBs (up to 1.5%).

As discussed in Section 2.2, an ER survey was completed in PAOC 18 to map the top of clay surface and identify "bowls" in the clay where DNAPL may pool. Wells were installed in these "bowls" to recover DNAPL. Appendix G provides additional information on the ER techniques used.

LNAPL has also been observed at the Site. The observed LNAPL does not appear continuous, widespread or consistently present in measurable quantities. Generally LNAPL has been observed in wells located near the Haulaway Building (PAOC 23) and near the sheetpile wall area (PAOC 18).

Table 3.5 presents the analytical results of LNAPL and DNAPL samples collected at the Site to date.

3.3.3 TEST PIT DATA

In addition to typical soil boring and monitoring well investigation methods, geophysical techniques were also employed to investigate the Site. Geophysical surveys including ER (previously discussed in Section 3.3.2), and electromagnetic (EM) surveys were completed within several PAOCs. The EM surveys were completed (using EM31 and EM61 instruments) to locate buried metal debris. Appendix G provides additional information on EM techniques used.

Test pitting activities were completed within several PAOCs to verify the results of the EM surveys. Figure 3.24 presents the results of the EM survey using the EM31 instruments providing a depth of penetration of approximately 20 feet. Figure 3.25 presents the results of the EM survey using the EM61 instruments providing a depth of penetration of approximately 10 feet. Both figures also show the location of test pits completed at the Site. Interference from metal objects such as parked cars, fence post, concrete containing rebar are generally evident based on Site features (shown on the Site figure) or are labeled. As is consistent with visual observations, the majority of the anomalies shown by the EM survey were at depths less than 10 feet bgs and appear on the EM61 plot.

Table 3.6 presents a summary of significant debris observed in the test pits and associated waste disposal characterization for drums uncovered during the test pitting activities. The buried waste material and debris observed at the Site included stained soils, solidified paint sludge, ash, plastic, concrete cinders, glass, brick, wood, cardboard, metal shavings, scrap metal, steel wiring, wood blocks, concrete, cement bricks, black tar and drums or drum remnants.

Soils and debris excavated during the test pitting activities were backfilled (if visually clean) or containerized in roll off boxes for proper characterization and disposal. The material containerized and disposed of in roll off boxes were characterized as follows:

- PAOC 18 – 4 roll of boxes (non-hazardous), 1 roll off box (characteristically hazardous for TCE)
- PAOC 23 & 29 - 1 roll of box (non-hazardous), 2 roll off boxes (characteristically hazardous for TCE), and 3 roll off boxes (characteristically hazardous for lead)

All waste was properly disposed at approved facilities.

Based on the results of the test pits, it is apparent that a large portion of the Site near the northern fence line was used as a fill area. The buried refuse and debris at the Site was observed in areas known to be primarily fill area based on a review of historical aerials and Site history (PAOCs 18 and 29).

3.3.4 SOIL GAS AND INDOOR AIR DATA

In 2005, eight permanent soil vapor probes were installed beneath the north portion of the Haulaway Building due to the concentrations of VOCs detected in groundwater and temporary soil gas probes. The permanent probes were sampled for target compound list (TCL) VOCs. Following review of the data collected from these probes and calculation of Site-specific SGC (protective of the soil gas to indoor air inhalation exposure pathway) indoor air samples were collected. Appendix E presents the results of the soil gas sampling and indoor air sampling results screened against the Site-specific criteria (developed in 2005, as discussed in Section 3.1.2).

Figure 3.26 presents the soil gas and indoor air sample data. Concentrations that exceed the MDEQ 2009 IAC and SGC are highlighted on the figure.

Analytical summary tables showing the indoor air and soil gas sample results are presented in Appendix F.2b an F.2c, respectively.

Soil gas results generally show cis-dichloroethylene (DCE) and TCE are above SGC, with only one location where vinyl chloride was detected above screening levels. Indoor air results indicate that only TCE was detected at levels above IAC. The highest

concentration detected in indoor air and soil gas samples were found in the northwest corner of the building, where paint sludge was observed in the boring.

3.3.5 STORM WATER DATA

All storm water collected by the storm sewer system at CVO is discharged directly to Tyler Pond through four outfalls (11 through 14). Outfall 11 drains the CVO parking lot west of the catwalks and part of the adjacent WRBC property. Permanent sewer plugs were installed in the storm sewer near PAOC 18 as a portion of the east-west sewer was destroyed during test pitting activities in 2003. Outfall 12 was abandoned in 2004 because the installed sheetpile wall would block its flow. Following these alterations to the sewers in 2003 and 2004, stormwater from the eastern portion of the property discharge to Tyler Pond through Outfalls 13 and 14.

Storm water samples were collected from Outfall 11 in both dry and wet weather conditions in 2003. Table 3.7 presents the storm water analytical results. Based on the results, it is evident that some infiltration of impacted groundwater is occurring through the storm sewer network.

4.0 SUMMARY OF RESPONSE ACTIONS

Several response actions have been implemented at the Site. Table 4.1 presents a summary of these actions, including location, description, timeframe and effectiveness. Appendix H includes summary data from these response actions.

In addition to the response actions already completed at the Site, CRA has recently conducted a laboratory treatability study to evaluate in-situ treatment of VOCs in groundwater. Specifically, in-situ chemical oxidation (ISCO), using catalyzed sodium persulfate and in-situ enhanced biodegradation (ISEB) were evaluated for treatment of groundwater near the Haulaway Building and along the southern property boundary. The results of the treatability study indicate that both in-situ treatments are effective in significantly reducing VOC concentrations. Appendix I presents the results of the treatability study.

5.0 REFERENCES

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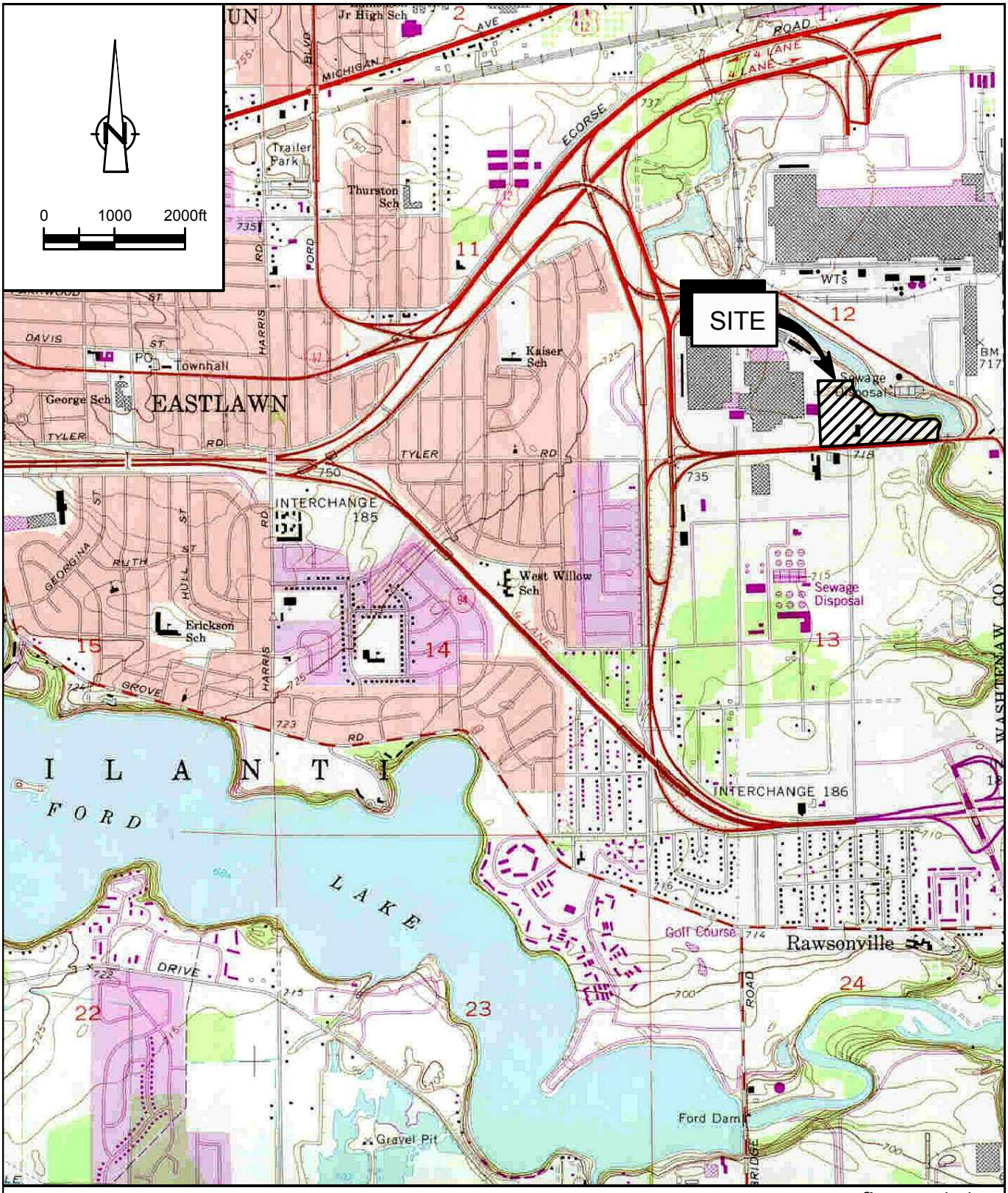


SOURCE: USGS QUADRANGLE MAP;
YPSILANTI EAST, MICHIGAN

figure 1.1
SITE LOCATION
SITE SUMMARY REPORT
FORMER GENERAL MOTORS
COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

YPSILANTI

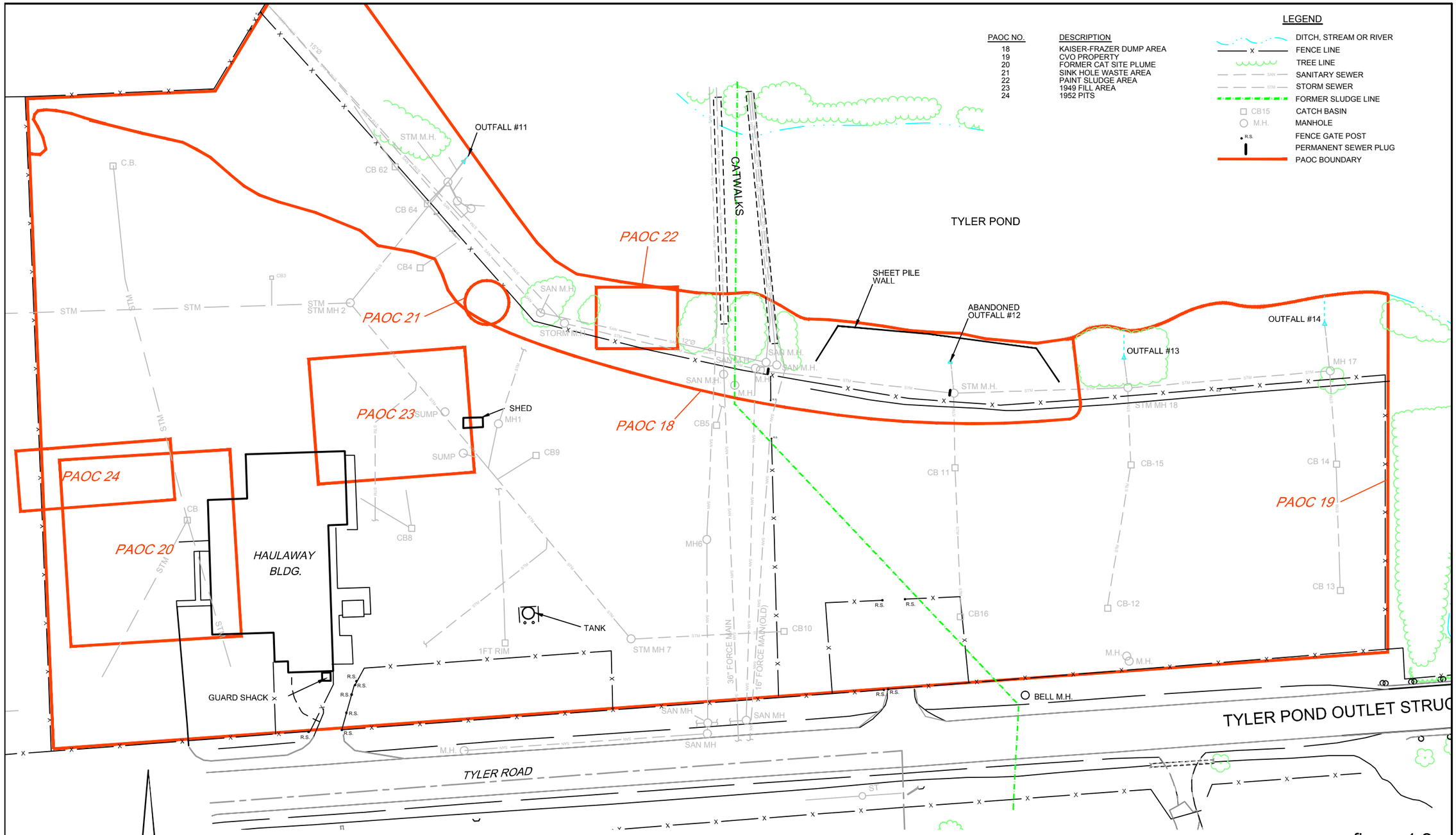


figure 1.2

PAOC LOCATIONS - PER WORK PLANS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

DRAFT FOR REVIEW

PAOC NO.	DESCRIPTION
18	OUTFALL 12 NAPL AREA
19	CVO PROPERTY GROUNDWATER
20	FORMER CAT SITE PLUME
21	*RESCINDED*
22	*RESCINDED*
23	1949 FILL AREA
24	1952 PITS
29	KAISER-FRAZER DUMP AREA

LEGEND

- DITCH, STREAM OR RIVER
- FENCE LINE
- TREE LINE
- SANITARY SEWER
- STORM SEWER
- FORMER SLUDGE LINE
- CB15 CATCH BASIN
- M.H. MANHOLE
- R.S. FENCE GATE POST
- PERMANENT SEWER PLUG
- PAOC BOUNDARY

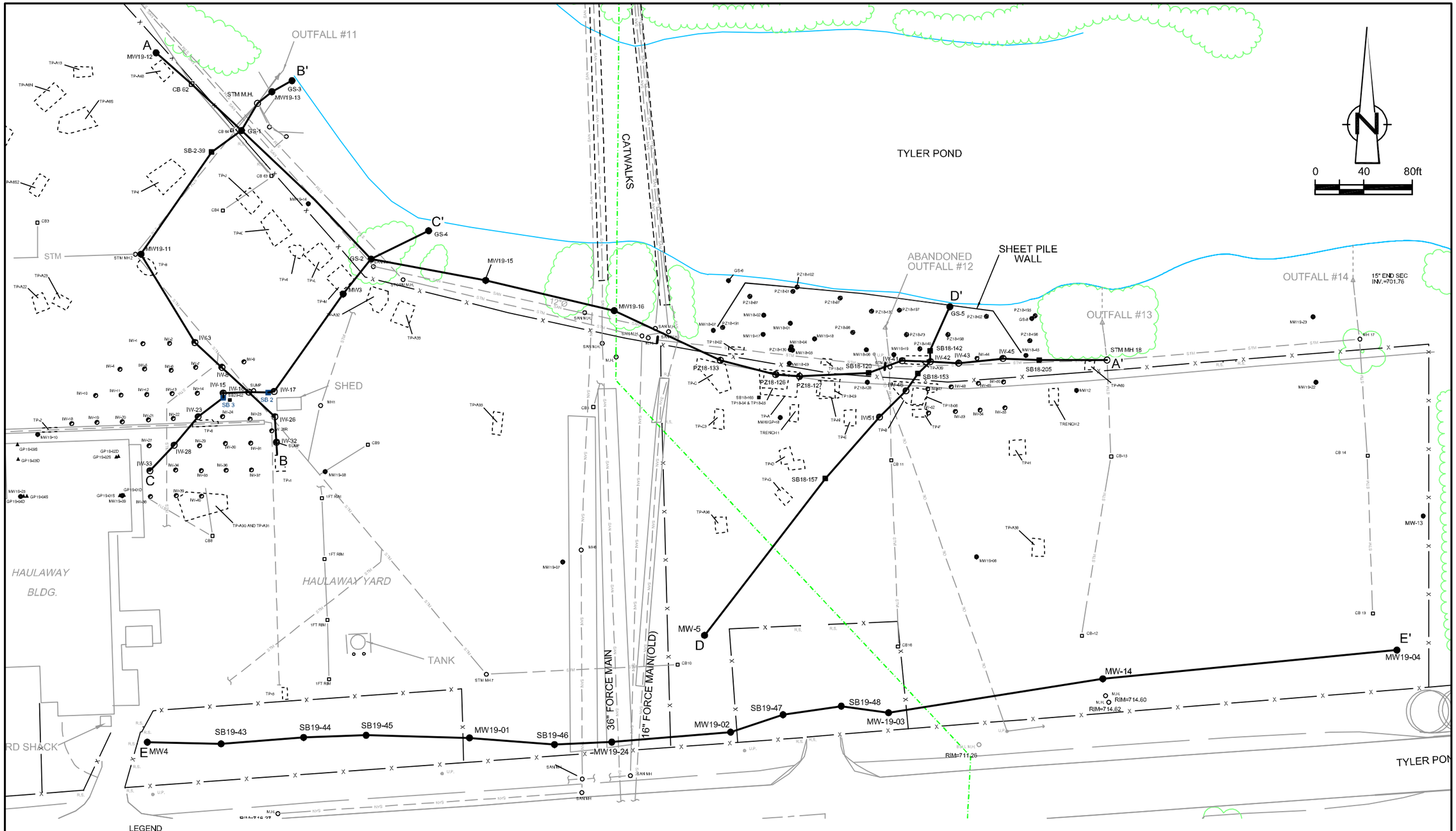
PAOC 29
PAOC 24
PAOC 23
PAOC 20
PAOC 18
PAOC 19
OUTFALL #11
OUTFALL #12
OUTFALL #13
OUTFALL #14
SHEET PILE WALL
ABANDONED
CATWALKS
TYLER POND
HAULAWAY BLDG.
GUARD SHACK
SHED
TANK
TYLER ROAD
TYLER POND OUTLET STRUC
STM M.H.
STM MH 2
STM MH 18
STORM M.H.
SAN M.H.
SAN MH
BELL M.H.
M.H.
MH 17
MH1
MH6
STM MH 7
CB 62
CB 64
CB4
CB3
CB9
CB8
CB 11
CB-15
CB 14
CB 13
CB-12
CB16
CB10
SUMP
1FT RIM
36" FORCE MAIN
16" FORCE MAIN (OLD)
C.B.
CB
N
0 50 100ft

figure 1.3

PAOC LOCATIONS - REVISED
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI029 JUN 28/2011

DRAFT FOR REVIEW



LEGEND

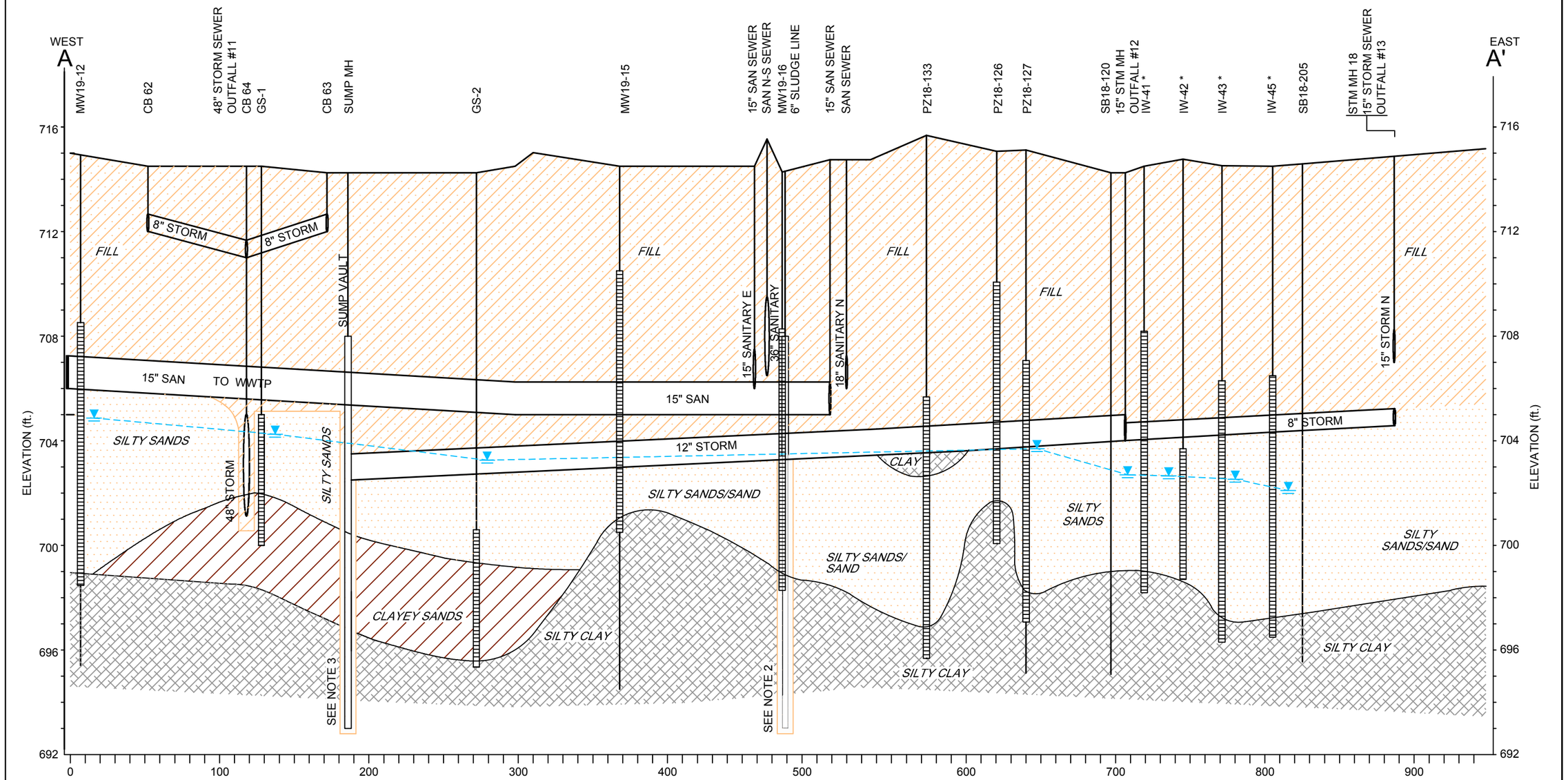
- DITCH, STREAM OR RIVER
- FENCE LINE
- TREE LINE
- FORMER DIESEL FUEL LINE
- SOIL BORINGS
- MW8 MONITORING WELL LOCATION
- GS-2 GROUNDWATER SURFACE WATER INTERFACE WELL
- IW-52 INJECTION WELL LOCATION
- GP19-03D GAS PROBE LOCATIONS
- SAN SANITARY SEWER
- STM STORM SEWER
- FORMER SLUDGE LINE
- OE OVERHEAD ELECTRICAL LINE
- CB15 CATCH BASIN
- MH18 MANHOLE
- PAVEMENT VARIATION
- UTILITY POLE
- FENCE GATE POST
- LOCATION UNKNOWN BEYOND THIS POINT
- TP-5 TEST PIT LOCATION
- PERMANENT SEWER PLUG

figure 2.1

CROSS SECTIONS LOCATION MAP
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

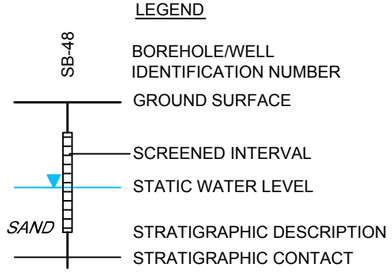
17303-T05(008)GN-WI030 JUL 07/2011

DRAFT FOR REVIEW



HORIZONTAL DISTANCE (ft.)
SCALE: (H) 1"=70'
(V) 1"=4'

LEGEND



NOTES:

1. GROUNDWATER AND TYLER POND ELEVATION RECORDED OCTOBER 2010.
2. SLUDGE LINE CONTINUES NORTH BELOW POND FLOOR TO FORMER WWTP ON NORTH SHORE OF POND.
3. APPROXIMATE 12 FOOT RECTANGULAR SUMP VAULT.

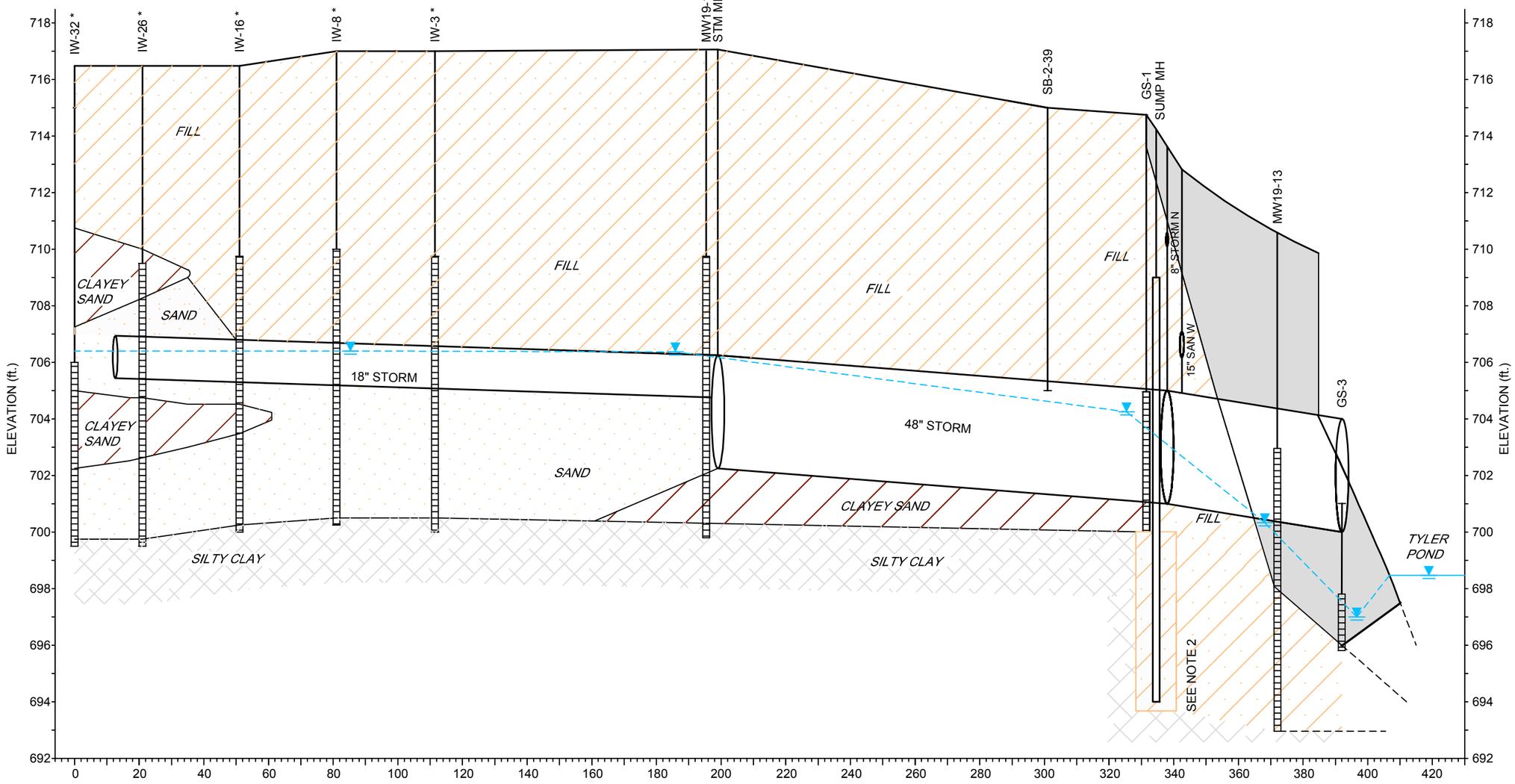
* CONTINUOUS SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED

figure 2.2

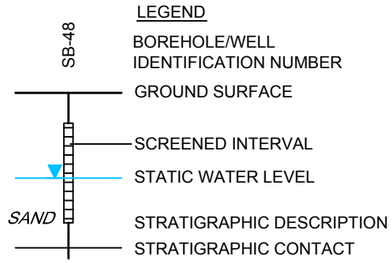
CROSS SECTION A-A'
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI031 JUN 29/2011

SOUTH B — NORTH B'



LEGEND



IMPORTED AND COMPACTED CLAY FROM 1998 POND DREDGING PROJECT BY WILLOW RUN CREEK POTENTIALLY RESPONSIBLE PARTIES

NOTES:

1. GROUNDWATER AND TYLER POND ELEVATIONS RECORDED OCTOBER 2010
2. APPROXIMATE 12 FOOT RECTAGULAR SUMP VAULT.

* CONTINUOUS SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED.

figure 2.3

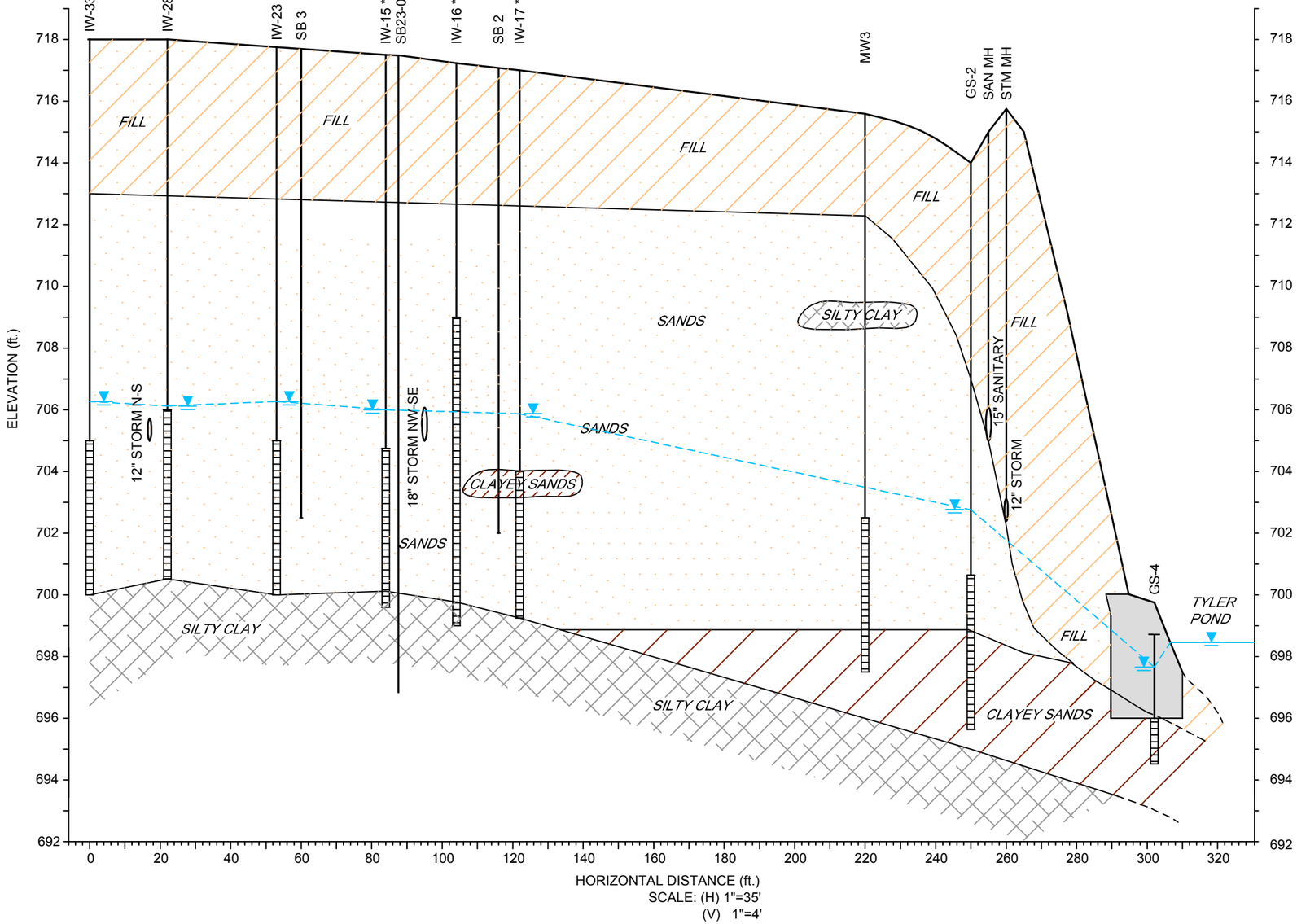
CROSS SECTION B-B'
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

SOUTHWEST

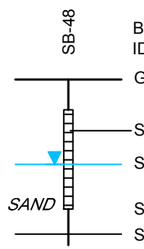
C

NORTHEAST

C'



LEGEND



BOREHOLE/WELL IDENTIFICATION NUMBER

GROUND SURFACE

SCREENED INTERVAL

STATIC WATER LEVEL

STRATIGRAPHIC DESCRIPTION

STRATIGRAPHIC CONTACT

NOTES:

1. GROUNDWATER AND TYLER POND ELEVATION RECORDED OCTOBER 2010

IMPORTED AND COMPACTED CLAY FROM 1998 POND DREDGING PROJECT BY WILLOW RUN CREEK POTENTIALLY RESPONSIBLE PARTIES

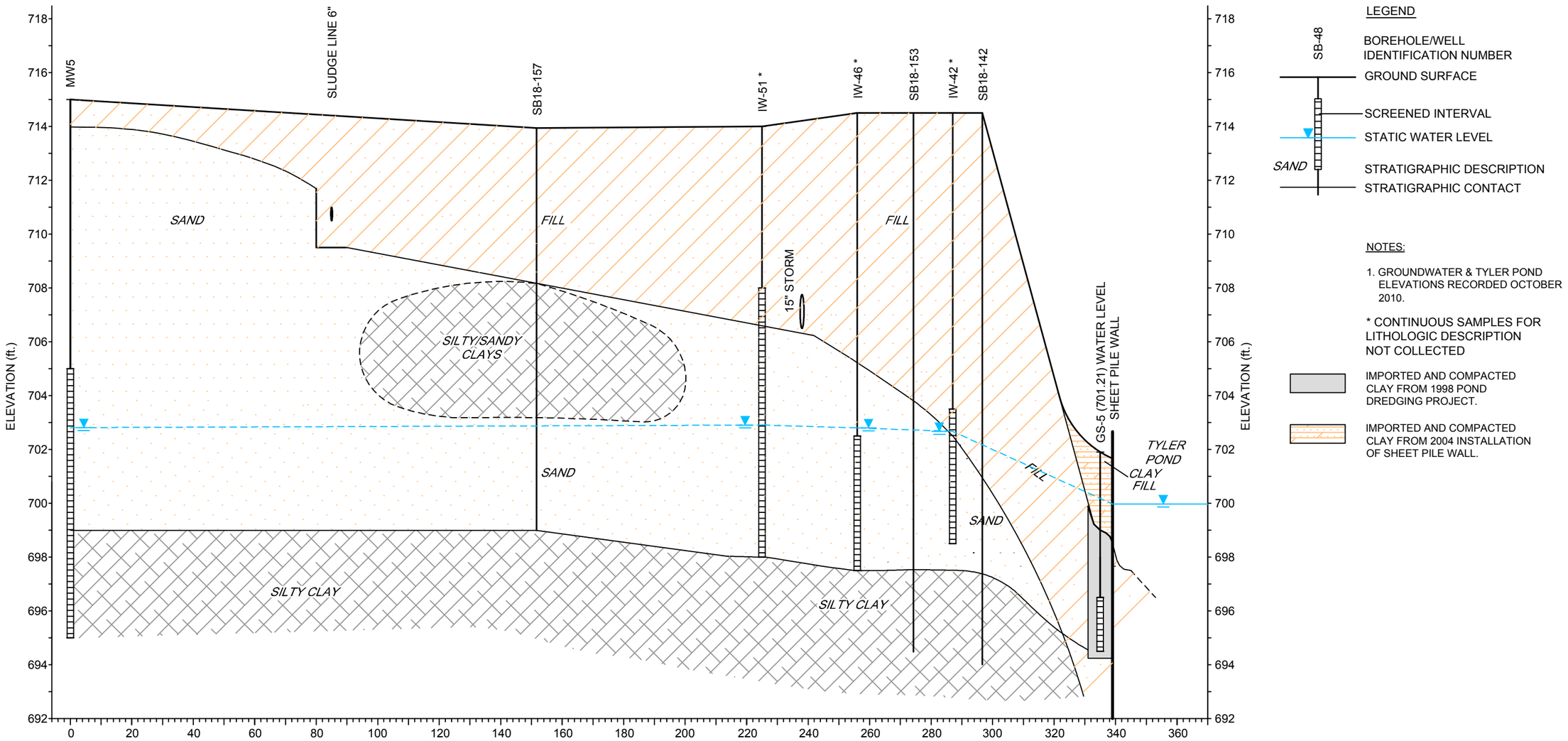
* CONTINUOUS SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED

figure 2.4

CROSS SECTION C-C'
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

SOUTHWEST D

NORTHEAST D'



HORIZONTAL DISTANCE (ft.)
SCALE: (H) 1"=35'
(V) 1"=4'

LEGEND

SB-48
SAND

BOREHOLE/WELL IDENTIFICATION NUMBER
GROUND SURFACE
SCREENED INTERVAL
STATIC WATER LEVEL
STRATIGRAPHIC DESCRIPTION
STRATIGRAPHIC CONTACT

NOTES:

1. GROUNDWATER & TYLER POND ELEVATIONS RECORDED OCTOBER 2010.

* CONTINUOUS SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED

IMPORTED AND COMPACTED CLAY FROM 1998 POND DREDGING PROJECT.

IMPORTED AND COMPACTED CLAY FROM 2004 INSTALLATION OF SHEET PILE WALL.

figure 2.5

CROSS SECTION D-D'
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

WEST
E

EAST
E'

MW-4
SB19-43
SB19-44
SB19-45
MW19-01
SB19-46
24" SAN SEWER
MW19-24
18" SAN SEWER
MW19-02
SB19-47
SB19-48
MW19-03
MW-14
MW19-04

720
716
712
708
704
700
696
692

ELEVATION (ft.)

FILL
SILTY SAND/ SAND
SILTY CLAY
24" SAN
18" SAN
CLAY FILL
SILT

0
100
200
300
400
500
600
700
800
900
1000

HORIZONTAL DISTANCE (ft.)
SCALE: (H) 1"=80'
(V) 1"=4'

LEGEND

MW-4 BOREHOLE/WELL IDENTIFICATION NUMBER

GROUND SURFACE

SCREENED INTERVAL

STATIC WATER LEVEL

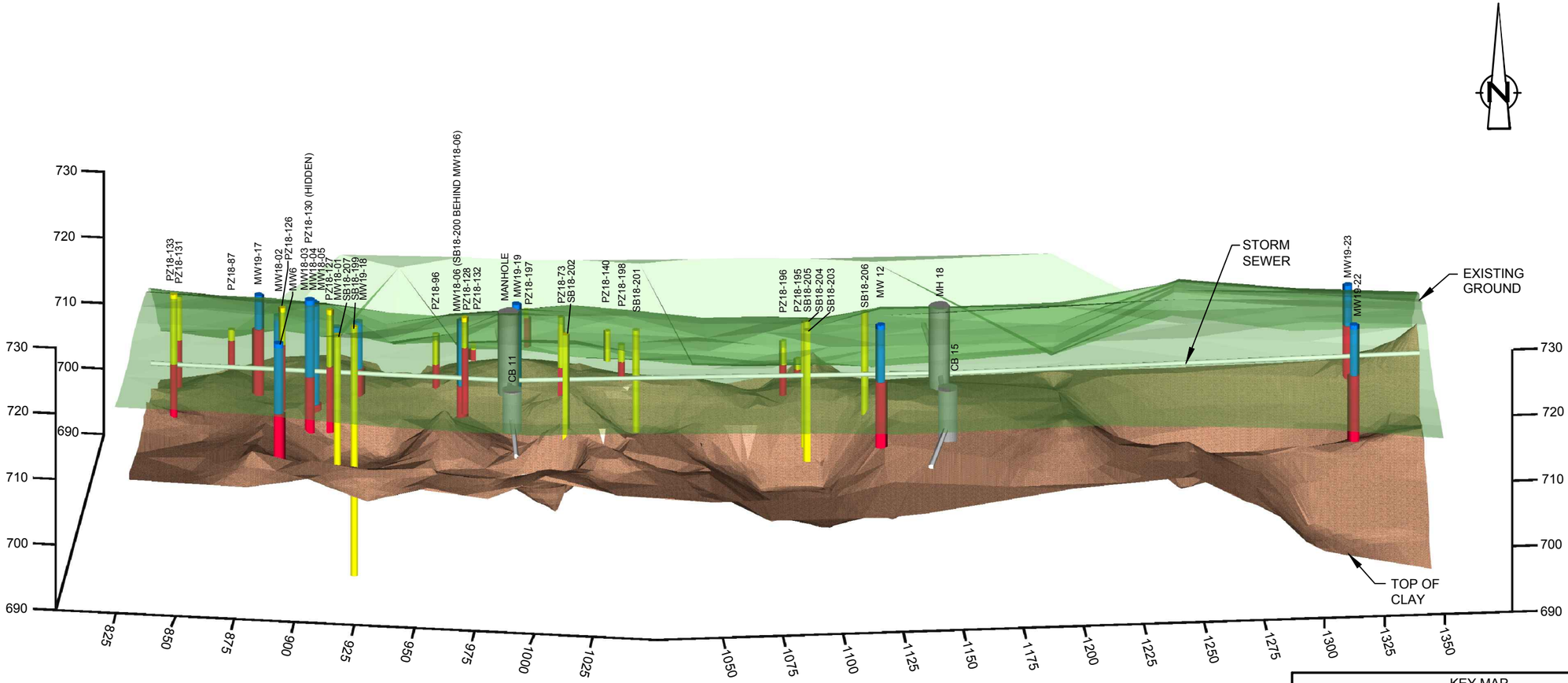
SAND STRATIGRAPHIC DESCRIPTION

STRATIGRAPHIC CONTACT

MW-4 GROUNDWATER ELEVATION MEASURED APRIL 12th, 2010. ALL OTHER GROUNDWATER ELEVATIONS MEASURED OCTOBER 26, 2010

figure 2.6

CROSS SECTION E-E'
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan



LEGEND

- MONITORING WELL
- PIEZEOMETER
- SOIL MIP BORING
- CATCHBASIN
- STORM SEWER
- EXISTING GROUND
- TOP OF CLAY

KEY MAP

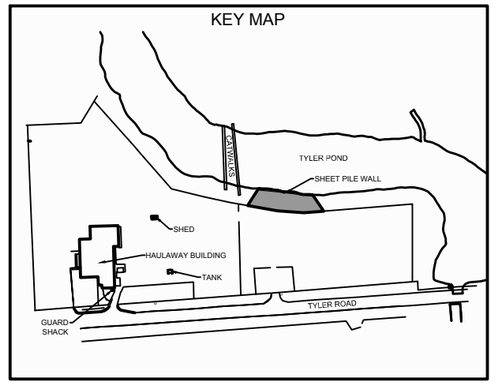


figure 2.7

PAOC 18 3-D VISUALIZATION - VIEW 1
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI039 JUL 06/2011

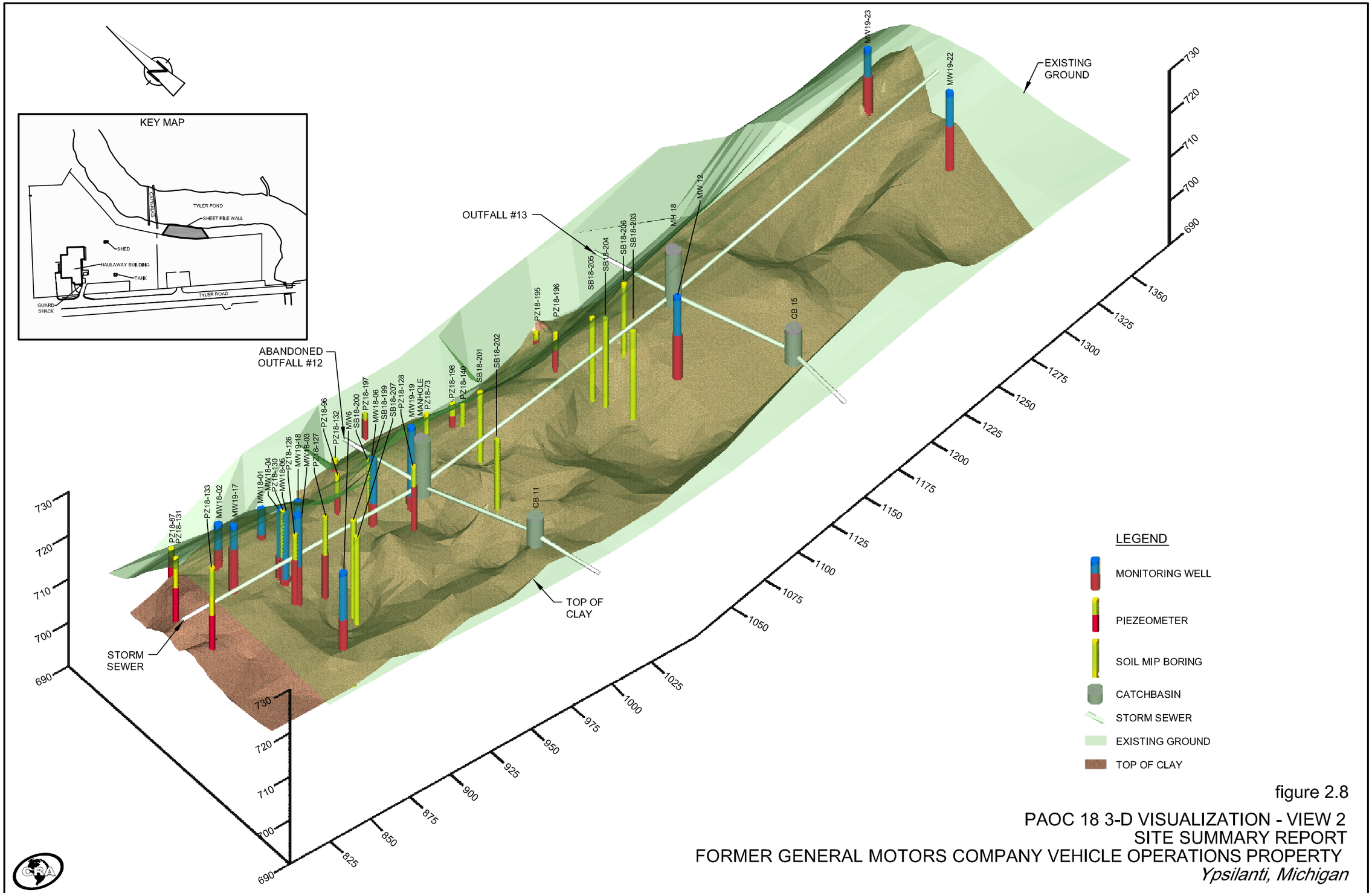
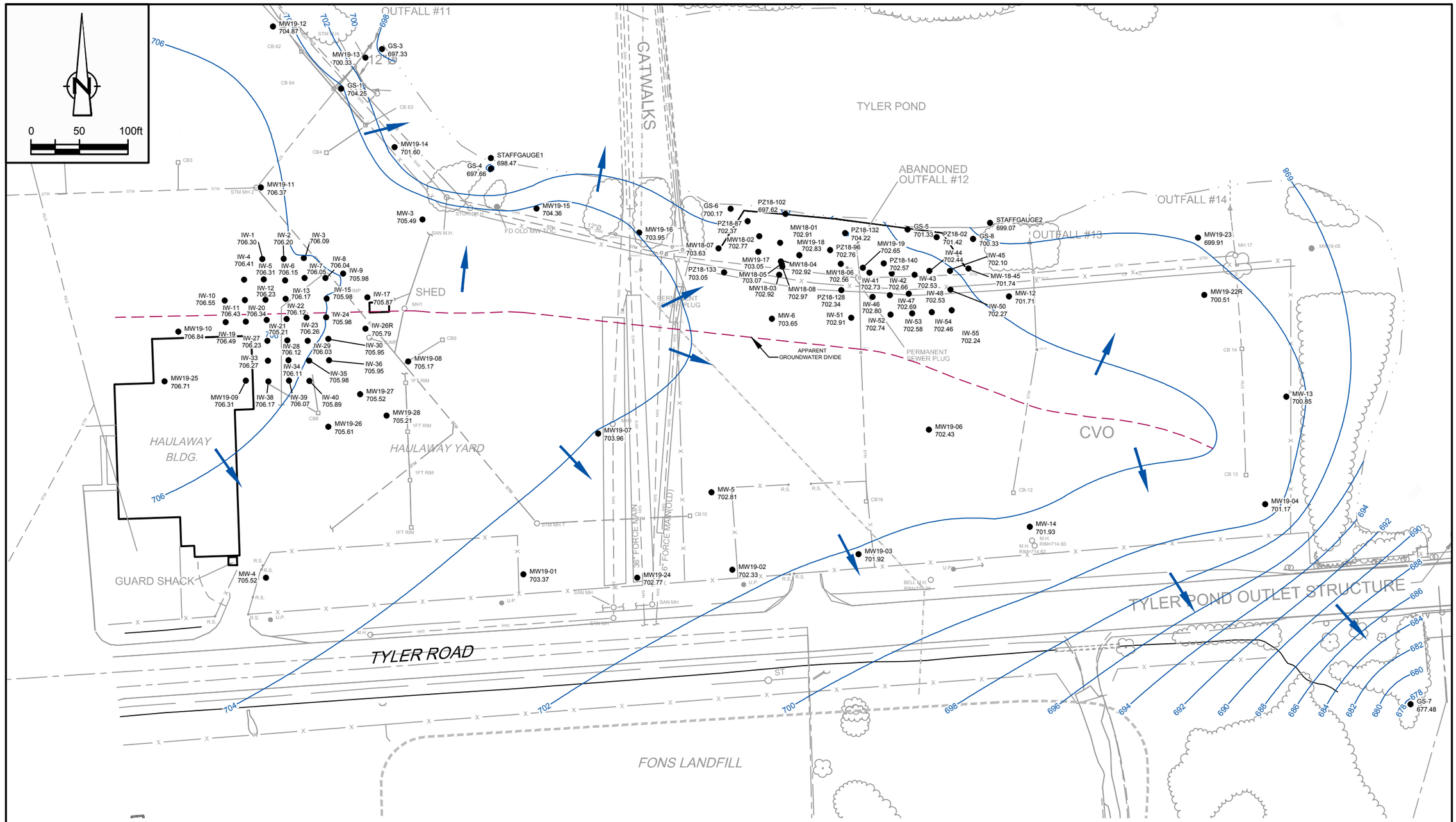


figure 2.8

PAOC 18 3-D VISUALIZATION - VIEW 2
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan



LEGEND

708 GROUNDWATER CONTOUR
DITCH, STREAM OR RIVER
FENCE LINE
TREE LINE
FORMER SLUDGE LINE
APPARENT GROUNDWATER DIVIDE
U.P. UTILITY POLE

NOTE: NO LEVELS OBTAINED FOR STAFF GAUGE#2.

figure 2.9

GROUNDWATER ELEVATION CONTOURS-OCTOBER 26, 2010
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS AREA
Ypsilanti, Michigan

DRAFT FOR REVIEW

N

0 10 20ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- DNAPL DELINEATION
- BURIED REFUSE DELINEATION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

SOIL CRITERIA (NON-RESIDENTIAL):

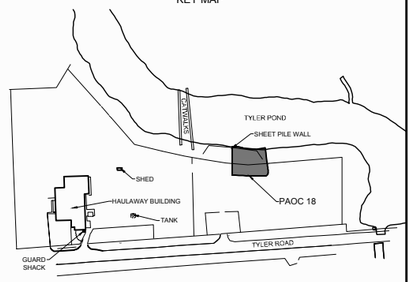
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION →	SB18-71	5/24/2004	DATE
		0.2 ft BGS	DEPTH
PARAMETER →	VOCs		
	1,1,2-Trichloroethane	0.2 U	
	1,1-Dichloroethane	0.2 U	
	1,2,4-Trichlorobenzene	1 U	
	1,2-Dibromo-3-chloropropane (DBCP)	1 U	
	1,2-Dichlorobenzene	0.41 U	RESULT
	1,2-Dichloroethane	0.2 U	
	1,4-Dichlorobenzene	0.41 U	
	Benzene	0.2 U	
	Chlorobenzene	0.2 U	
	cis-1,2-Dichloroethene	5.6 (E)	
	Ethylbenzene	0.2 U	
	Isopropyl benzene	1 U	
	Methylene chloride	1 U	
	Styrene	0.2 U	
	Toluene	0.41 U	
	Trichloroethene	1.1 (E)	EXCEEDANCE
	Vinyl chloride	0.41 U	
	Xylenes (total)	2 U	
	PCBs		
	Total PCBs	0.42 U	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - VOCs and PCBs
PAOC 18 - EAST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.1A

17303-T05(008)GN-WI012 JUL 06/2011

SB18-138	9/9/2004	9/9/2004
	0.2-0.5 ft BGS	2.5-5 ft BGS
VOCs		
cis-1,2-Dichloroethene	630 (B,C,E,F,I)	1.24
Ethylbenzene	0.8 J(I)	0.05 U
Methylene chloride	10 U	0.3 U
o-Xylene	1 J	0.05 U
p-Xylene	4 J	0.1 U
Toluene	4	0.05 U
Trichloroethene	126 (E,F,I)	0.05 U
Vinyl chloride	32 (C,E,F,H,I)	1.76 (E,I)

SB18-137	9/9/2004	9/9/2004	9/9/2004
	0.2 ft BGS	2-4 ft BGS	4-6 ft BGS
VOCs			
cis-1,2-Dichloroethene	24.1 (E,I)	53.2 (E,F,I)	0.009 J
Ethylbenzene	0.3 U	0.8 U	0.05 U
Methylene chloride	1 U	4 U	0.3 U
o-Xylene	0.3 U	0.8 U	0.05 U
p-Xylene	0.5 U	2 U	0.1 U
Toluene	0.3 U	0.8 U	0.05 U
Trichloroethene	0.08 J	3 (E)	0.05 U
Vinyl chloride	0.4 (E,I)	15.2 (E,F,I)	3.96 (E,F,I)

SB18-139	9/9/2004	9/9/2004	9/9/2004
	0.2-0.5 ft BGS	2.5-5.5 ft BGS	5.7-5.9 ft BGS
VOCs			
cis-1,2-Dichloroethene	0.25	0.02 J	9.13 (E)
Ethylbenzene	0.05 U	0.13	0.05 U
Methylene chloride	0.3 U	0.3 U	0.3 U
o-Xylene	0.05 U	0.16	0.05 U
p-Xylene	0.1 U	0.5	0.1 U
Toluene	0.05 U	0.01 J	0.05 U
Trichloroethene	0.05	0.05 U	0.02 J
Vinyl chloride	0.05 U	0.1 (E)	3.49 (E,F,I)
PCBs			
Total PCBs	0.33 U	0.33 U	0.33 U

PZ18-73	5/24/2004	5/24/2004
	0.2 ft BGS	5-7 ft BGS
VOCs		
1,1,2-Trichloroethane	0.057 U	0.2 U
1,1-Dichloroethene	0.057 U	0.2 U
1,2,4-Trichlorobenzene	0.28 U	1 U
1,2-Dibromo-3-chloropropane (DBCP)	0.28 U	1 U
1,2-Dichlorobenzene	0.11 U	0.41 U
1,2-Dichloroethane	0.057 U	0.2 U
1,4-Dichlorobenzene	0.11 U	0.41 U
Benzene	0.057 U	0.2 U
Chlorobenzene	0.057 U	0.2 U
cis-1,2-Dichloroethene	0.057 U	6 (E)
Ethylbenzene	0.057 U	0.2 U
Isopropyl benzene	0.28 U	1 U
Methylene chloride	0.28 U	1 U
Styrene	0.057 U	0.2 U
Toluene	0.11 U	0.41 U
Trichloroethene	0.18 (E)	1.8 (E)
Vinyl chloride	0.11 U	0.41 U
Xylenes (total)	0.57 U	2 U
PCBs		
Total PCBs	0.12	0.38 U

SB18-72	5/24/2004	5/24/2004
	0.2 ft BGS	2-4 ft BGS
VOCs		
1,1,2-Trichloroethane	0.056 U	0.17 U
1,1-Dichloroethene	0.056 U	0.17 U
1,2,4-Trichlorobenzene	0.28 U	0.85 U
1,2-Dibromo-3-chloropropane (DBCP)	0.28 U	0.85 U
1,2-Dichlorobenzene	0.11 U	0.34 U
1,2-Dichloroethane	0.056 U	0.17 U
1,4-Dichlorobenzene	0.11 U	0.34 U
Benzene	0.018 J	0.17 U
Chlorobenzene	0.056 U	0.17 U
cis-1,2-Dichloroethene	0.11	0.17 U
Ethylbenzene	0.13	0.17 U
Isopropyl benzene	0.075 J	0.85 U
Methylene chloride	0.28 U	0.85 U
Styrene	0.056 U	0.17 U
Toluene	0.025 J	0.34 U
Trichloroethene	0.056 U	0.17 U
Vinyl chloride	0.11 U	4.1 (E,F,I)
Xylenes (total)	0.51 J	1.7 U
PCBs		
Total PCBs	0.122	0.39 U

SB18-144	9/10/2004	9/10/2004	9/10/2004	9/10/2004	9/10/2004	9/10/2004	9/10/2004	9/10/2004
	0.2-0.5 ft BGS	2.5-5 ft BGS	5-7.5 ft BGS	7.5-10 ft BGS	10-12.5 ft BGS	12.5-15 ft BGS	15-17.5 ft BGS	17.5-20 ft BGS
VOCs								
cis-1,2-Dichloroethene	0.05 U	0.05 U	0.05 U	14.3 (E,I)	27.1 (E,I)	8.7 (E)	0.97	0.05 U
Ethylbenzene	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.1 U	0.05 U	0.05 U
Methylene chloride	0.3 U	0.3 U	0.3 U	3 U	3 U	0.5 U	0.3 U	0.3 U
o-Xylene	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.1 U	0.05 U	0.05 U
p-Xylene	0.1 U	0.1 U	0.1 U	1 U	1 U	0.2 U	0.1 U	0.1 U
Toluene	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.03 J	0.05 U	0.05 U
Trichloroethene	0.13 (E)	0.02 J	0.07	32.7 (E,I)	69.9 (E,F,I)	0.3 (E)	0.03 J	0.04 J
Vinyl chloride	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.8 (E,I)	1.08 (E,I)	0.05 U
PCBs								
Total PCBs	0.7	0.33 U	0.33 U	0.33 U	2	0.33 U	0.33 U	

SB18-140	9/10/2004
	17.5-20 ft BGS
VOCs	
cis-1,2-Dichloroethene	0.05
Ethylbenzene	0.05 U
Methylene chloride	0.3 U
o-Xylene	0.05 U
p-Xylene	0.1 U
Toluene	0.05 U
Trichloroethene	0.04 J
Vinyl chloride	3.44 (E,F,I)
PCBs	
Total PCBs	0.33 U

SB18-201	6/6/2005	6/6/2005
	8.5-9.5 ft BGS	17-18 ft BGS
VOCs		
1,1,2-Trichloroethane	0.43 U	0.048 U
1,1-Dichloroethene	0.43 U	0.048 U
1,2,4-Trichlorobenzene	2.1 U	0.24 U
1,2-Dibromo-3-chloropropane (DBCP)	2.1 U	0.24 U
1,2-Dichlorobenzene	0.86 U	0.097 U
1,2-Dichloroethane	0.43 U	0.048 U
1,4-Dichlorobenzene	0.86 U	0.097 U
Benzene	0.43 U	0.048 U
Chlorobenzene	0.43 U	0.048 U
cis-1,2-Dichloroethene	8.8 (E)	0.048 U
Ethylbenzene	0.43 U	0.048 U
Isopropyl benzene	2.1 U	0.24 U
Methylene chloride	2.1 U	0.24 U
Styrene	0.43 U	0.048 U
Toluene	0.86 U	0.097 U
Trichloroethene	12 (E,I)	0.074
Vinyl chloride	0.34 U	0.12 (E)
Xylenes (total)	1.3 U	0.14 U

B-11	4/9/2003
	-
VOCs	
1,1,2-Trichloroethane	0.065 U
1,1-Dichloroethene	0.065 U
1,2,4-Trichlorobenzene	0.77
1,2,4-Trimethylbenzene	0.33 U
1,2-Dibromo-3-chloropropane (DBCP)	0.33 U
1,2-Dichlorobenzene	0.13 U
1,2-Dichloroethane	0.065 U
1,4-Dichlorobenzene	0.13 U
Chlorobenzene	0.065 U
cis-1,2-Dichloroethene	34 (E,I)
Ethylbenzene	0.26
Isopropyl benzene	0.33 U
Methylene chloride	0.33 U
Styrene	0.065 U
Toluene	0.18
Trichloroethene	0.066 U
Vinyl chloride	0.51 (E,I)
Xylenes (total)	1.02 (I)
PCBs	
Total PCBs	10

SB18-71	5/24/2004
	0.2 ft BGS
VOCs	
1,1,2-Trichloroethane	0.2 U
1,1-Dichloroethene	0.2 U
1,2,4-Trichlorobenzene	1 U
1,2-Dibromo-3-chloropropane (DBCP)	1 U
1,2-Dichlorobenzene	0.41 U
1,2-Dichloroethane	0.2 U
1,4-Dichlorobenzene	0.41 U
Benzene	0.2 U
Chlorobenzene	0.2 U
cis-1,2-Dichloroethene	5.6 (E)
Ethylbenzene	0.2 U
Isopropyl benzene	1 U
Methylene chloride	1 U
Styrene	0.2 U
Toluene	0.41 U
Trichloroethene	1.1 (E)
Vinyl chloride	0.41 U
Xylenes (total)	2 U
PCBs	
Total PCBs	0.42 U

SB18-16	11/14/2003	11/14/2003
	0-2 ft BGS	4-6 ft BGS
VOCs		
1,1,2-Trichloroethane	0.063 U	0.17 U
1,1-Dichloroethene	0.063 U	0.17 U
1,2,4-Trichlorobenzene	0.32 U	0.85 U
1,2-Dibromo-3-chloropropane (DBCP)	0.32 U	0.85 U
1,2-Dichlorobenzene	0.13 U	0.34 U
1,2-Dichloroethane	0.063 U	0.17 U
1,4-Dichlorobenzene	0.13 U	0.34 U
Benzene	0.063 U	0.17 U
Chlorobenzene	0.063 U	0.17 U
cis-1,2-Dichloroethene	0.063 U	5 (E)
Ethylbenzene	0.063 U	0.17 U
Isopropyl benzene	0.32 U	0.85 U
Methylene chloride	0.32 U	0.85 U
Styrene	0.063 U	0.17 U
Toluene	0.13 U	0.34 U
Trichloroethene	0.037 J	0.17 U
Vinyl chloride	0.13 U	0.22 J(E)
Xylenes (total)	0.63 U	1.7 U
PCBs		
Total PCBs	0.36 U	0.4 U

SB18-205	6/6/2005
	18-19 ft BGS
VOCs	
1,1,2-Trichloroethane	0.045 U
1,1-Dichloroethene	0.045 U
1,2,4-Trichlorobenzene	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U
1,2-Dichlorobenzene	0.09 U
1,2-Dichloroethane	0.045 U
1,4-Dichlorobenzene	0.09 U
Benzene	0.045 U
Chlorobenzene	0.045 U
cis-1,2-Dichloroethene	0.045 U
Ethylbenzene	0.045 U
Isopropyl benzene	0.045 U
Methylene chloride	0.23 U
Styrene	0.045 U
Toluene	0.09 U
Trichloroethene	0.045 U
Vinyl chloride	0.036 U
Xylenes (total)	0.14 U

SB18-76	5/24/2004	5/24/2004
	0.2 ft BGS	10-12 ft BGS
VOCs		
1,1,2-Trichloroethane	0.05 U	0.056 U
1,1-Dichloroethene	0.05 U	0.056 U
1,2,4-Trichlorobenzene	0.25 U	0.28 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U	0.28 U
1,2-Dichlorobenzene	0.1 U	0.11 U
1,2-Dichloroethane	0.05 U	0.056 U
1,4-Dichlorobenzene	0.1 U	0.11 U
Benzene	0.05 U	0.056 U
Chlorobenzene	0.05 U	0.056 U
cis-1,2-Dichloroethene	0.05 U	0.029 J
Ethylbenzene	0.05 U	0.056 U
Isopropyl benzene	0.25 U	0.28 U
Methylene chloride	0.25 U	0.28 U
Styrene	0.05 U	0.056 U
Toluene	0.1 U	0.11 U
Trichloroethene	0.064	0.6 (E)
Vinyl chloride	0.1 U	0.11 U
Xylenes (total)	0.5 U	0.56 U
PCBs		
Total PCBs	0.36 U	0.37 U

TP-A60	6/14/2005
	10-12 ft BGS
VOCs	
1,1,2-Trichloroethane	0.039 U
1,1-Dichloroethene	0.039 U
1,2,4-Trichlorobenzene	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	0.19 U
1,2-Dichlorobenzene	0.078 U
1,2-Dichloroethane	0.039 U
1,4-Dichlorobenzene	0.078 U
Benzene	0.039 U
Chlorobenzene	0.039 U
cis-1,2-Dichloroethene	0.039 U
Ethylbenzene	0.039 U
Isopropyl benzene	0.19 U
Methylene chloride	0.19 U
Styrene	0.039 U
Toluene	0.078 U
Trichloroethene	1.5 (E)
Vinyl chloride	0.031 U
Xylenes (total)	0.12 U
PCBs	
Total PCBs	0.26 U

SB18-70	5/19/2004	5/19/2004	5/19/2004
	0.2 ft BGS	5-6 ft BGS	10-12 ft BGS
VOCs			
1,1,2-Trichloroethane	0.19 U	510 U	1.1 U
1,1-Dichloroethene	0.19 U	510 U	1.1 U
1,2,4-Trichlorobenzene	0.97 U	2600 U	5.6 U
1,2-Dibromo-3-chloropropane (DBCP)	0.97 U	2600 U	5.6 U
1,2-Dichlorobenzene	0.39 U	1000 U	2.2 U
1,2-Dichloroethane	0.19 U	190 J(A,B,C,E,F,I)	1.1 U
1,4-Dichlorobenzene	0.39 U	1000 U	2.2 U
Benzene	0.19 U	510 U	1.1 U
Chlorobenzene	0.19 U	510 U	1.1 U
cis-1,2-Dichloroethene	0.19 U	350 J(C,E,F,I)	34 (E,I)
Ethylbenzene	5.4 (E,I)	330 J(D,E,F,H,I,J)	1.1 U
Isopropyl benzene	1.5	2600 U	5.6 U
Methylene chloride	0.27 J(E)	760 J(C,E,F,I)	1.5 J(I)
Styrene	0.19 U	510 U	1.1 U
Toluene	0.078 J	320 J(D,E,F,H,I,J)	2.2 U
Trichloroethene	0.19 U	12000 J(A,B,C,D,E,F,H,I,J)	28 (E,I)
Vinyl chloride	0.39 U	1000 U	2.2 U
Xylenes (total)	13 (E,I)	2100 J(D,E,F,H,I,J)	11 U
PCBs			
Total PCBs	0.28	2	0.37 U

SB18-203	6/2/2005	6/2/2005	6/2/2005	6/2/2005
	0-3 ft BGS	3-6 ft BGS	6-9.5 ft BGS	9-12 ft BGS
VOCs				
1,1,2-Trichloroethane	0.037 U	0.04 U	0.8 U	0.08 U
1,1-Dichloroethene	0.037 U	0.04 U	0.8 U	0.08 U
1,2,4-Trichlorobenzene	0.19 U	0.2 U	4 U	0.4 U
1,2-Dibromo-3-chloropropane (DBCP)	0.19 U	0.2 U	4 U	0.4 U
1,2-Dichlorobenzene	0.074 U	0.08 U	1.6 U	0.16 U
1,2-Dichloroethane	0.037 U	0.04 U	0.8 U	0.08 U
1,4-Dichlorobenzene	0.074 U	0.08 U	1.6 U	0.16 U
Benzene	0.037 U	0.04 U	0.8 U	0.08 U
Chlorobenzene	0.037 U	0.04 U	0.8 U	0.08 U
cis-1,2-Dichloroethene	0.061	0.061	25 (E,I)	1.6 (E)
Ethylbenzene	0.037 U	0.04 U	0.8 U	0.08 U
Isopropyl benzene	0.19 U	0.2 U	4 U	0.4 U
Methylene chloride	0.19 U	0.2 U	4 U	0.4 U
Styrene	0.037 U	0.04 U	0.8 U	0.08 U
Toluene	0.074 U	0.08 U	1.6 U	0.16 U
Trichloroethene	0.6 (E)	0.48 (E)	7.9 (E,I)	2.4 (E)
Vinyl chloride	0.03 U	0.032 U	0.64 U	0.064 U
Xylenes (total)	0.11 U	0.12 U	2.4 U	0.24 U
PCBs				
Total PCBs	0.33 U	1.6 U	1.6 U	0.26 U

SB18-61A	8/23/2004	8/31/2004	8/31/2004
	0-2.2 ft BGS	2-2.9 ft BGS	4-6.4 ft BGS
VOCs			
cis-1,2-Dichloroethene	46 (E,F,I)	265 (C,E,F,I)	0.05 U
Ethylbenzene	0.8 J(I)	5 U	0.05 U
Methylene chloride	5 U	30 U	0.3 U
o-Xylene	1	5 U	0.05 U
p-Xylene	3	10 U	0.1 U
Toluene	2	5 U	0.05 U
Trichloroethene	0.2 J(I)	5 U	0.05 U
Vinyl chloride	18 (E,F,I)	36 (C,D,E,F,H,I)	0.05 U
PCBs			
Total PCBs	5.7	0.1	0.33 U

SB18-93	8/24/2004	8/24/2004
	0-1 ft BGS	3-3.3 ft BGS
VOCs		
cis-1,2-Dichloroethene	40 (E,I)	101 (E,F,I)
Ethylbenzene	1 (I)	2 (E,I)
Methylene chloride	5 U	5 U
o-Xylene	0.9 J	2
p-Xylene	3	6 (E)
Toluene	1	2
Trichloroethene	0.6 J(E)	2 (E)
Vinyl chloride	7 (E,F,I)	8 (E,F,I)
PCBs		
Total PCBs	0.33 U	0.02

SB18-94	8/24/2004	8/24/2004
	1.5-1.5 ft BGS	4.5-4.5 ft BGS
VOCs		
cis-1,2-Dichloroethene	0.02 J	12.1 (E,I)
Ethylbenzene	0.05 U	1.2 (I)
Methylene chloride	0.3 U	3 U
o-Xylene	0.05 U	0.5 J
p-Xylene	0.1 U	3
Toluene	0.05 U	0.7
Trichloroethene	0.19 (E)	0.7 (E)
Vinyl chloride	0.05 U	5.7 (E,F,I)
PCBs		
Total PCBs	0.12	0.5

SB18-92	8/24/2004	8/24/2004
	0-2 ft BGS	6.9-6.9 ft BGS
VOCs		
cis-1,2-Dichloroethene	0.05 U	120 (E,F,I)
Ethylbenzene	0.05 U	4 J(E,I)
Methylene chloride	0.3 U	30 U
o-Xylene	0.05 U	7 (E)
p-Xylene	0.1 U	20 (E)
Toluene	0.05 U	16 (I)
Trichloroethene	0.23 (E)	5 U
Vinyl chloride	0.05 U	12 (E,F,I)
PCBs		
Total PCBs	0.33 U	0.6

SB18-84	8/23/2004
	3-3 ft BGS
VOCs	
cis-1,2-Dichloroethene	1.09
Ethylbenzene	0.05 U
Methylene chloride	0.3 U
o-Xylene	0.05 U
p-Xylene	0.1 U
Toluene	0.05 U
Trichloroethene	1.74 (E)
Vinyl chloride	0.05 U
PCBs	
Total PCBs	0.33 U

SB18-118	8/31/2004	8/31/2004	8/31/2004
	0-2 ft BGS	2-4 ft BGS	6-6 ft BGS
VOCs			
cis-1,2-Dichloroethene	0.02 J	2.37 (E)	115 (E,F,I)
Ethylbenzene	0.05 U	0.05 U	5 U
Methylene chloride	0.3 U	0.3 U	30 U
o-Xylene	0.05 U	0.05 U	5 U
p-Xylene	0.1 U	0.1 U	10 U
Toluene	0.05 U	0.05 U	5 U
Trichloroethene	0.05 U	0.17 (E)	345 (C,E,F,I)
Vinyl chloride	0.05 U	0.05 U	21 (E,F,H,I)
PCBs			
Total PCBs	0.33 U	0.26	0.33 U

PZ18-96	8/25/2004	8/25/2004	8/25/2004
	0-2.5 ft BGS	2.5-5 ft BGS	8-8 ft BGS
VOCs			
cis-1,2-Dichloroethene	0.08	0.04 J	630 (B,C,E,F,I)
Ethylbenzene	0.05 U	0.05 U	30 (E,I)
Methylene chloride	0.3 U	0.3 U	50 U
o-Xylene	0.05 U	0.05 U	50 (E)
p-Xylene	0.1 U	0.1 U	150 (E)
Toluene	0.05 U	0.05 U	90 (E,I)
Trichloroethene	0.12 (E)	0.08	10 U
Vinyl chloride	0.05 U	0.05 U	60 (C,D,E,F,H,I)
PCBs			
Total PCBs	0.33 U	0.33 U	0.8

SB18-117	8/31/2004	8/31/2004	8/31/2004
	4-4.6 ft BGS	6.7-7 ft BGS	9.2-9.2 ft BGS
VOCs			
cis-1,2-Dichloroethene	44.1 (E,F,I)	64.5 (E,F,I)	4.16 (E)
Ethylbenzene	0.7 (I)	1.0 (I)	0.05 U
Methylene chloride	3 U	3 U	0.02 J
o-Xylene	1.2	2.0	0.05 U
p-Xylene	4	7 (E)	0.1 U
Toluene	2.5	4.4	0.05 U
Trichloroethene	0.1 J	0.5 U	0.01 J
Vinyl chloride	2.4 (E,I)	9.2 (E,F,I)	4.93 (E,F,I)
PCBs			
Total PCBs	0.33 U	0.7	0.33 U

SB18-95	8/25/2004	8/25/2004	8/25/2004	8/25/2004
	0-2.5 ft BGS	2.5-5.5 ft BGS	5.7-5.9 ft BGS	7.5-10 ft BGS
VOCs				
cis-1,2-Dichloroethene	0.05 U	0.05 U	0.18	8.1 (E)
Ethylbenzene	0.05 U	0.05 U	0.05 U	0.5 U
Methylene chloride	0.3 U	0.3 U	0.3 U	3 U
o-Xylene	0.05 U	0.05 U	0.05 U	0.5 U
p-Xylene	0.1 U	0.1 U	0.1 U	1 U
Toluene	0.05 U	0.05 U	0.05 U	0.5 U
Trichloroethene	0.03 J	0.01 J	0.28 (E)	9.2 (E,I)
Vinyl chloride	0.05 U	0.05 U	0.05 U	0.5 U
PCBs				
Total PCBs	0.6	0.33 U	0.33 U	0.33 U

SB18-82	8/23/2004	8/23/2004	8/23/2004	8/23/2004
	0-2.5 ft BGS	2.5-5 ft BGS	5-7.5 ft BGS	7.5-10 ft BGS
VOCs				
cis-1,2-Dichloroethene	0.05 U	0.05 U	0.05 U	8.4 (E)
Ethylbenzene	0.05 U	0.05 U	0.05 U	0.5 U
Methylene chloride	0.3 U	0.3 U	0.3 U	3 U
o-Xylene	0.05 U	0.05 U	0.05 U	0.5 U
p-Xylene	0.1 U	0.1 U	0.1 U	1 U
Toluene	0.05 U	0.05 U	0.05 U	0.5 U
Trichloroethene	0.009 J	0.05 U	0.02 J	5.6 (E,I)
Vinyl chloride	0.05 U	0.05 U	0.05 U	0.5 U
PCBs				
Total PCBs	0.1	0.33 U	0.33 U	1.3

SB18-200	6/6/2006
	17-18 ft BGS
VOCs	
1,1,2-Trichloroethane	0.046 U
1,1-Dichloroethene	0.046 U
1,2,4-Trichlorobenzene	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U
1,2-Dichlorobenzene	0.091 U
1,2-Dichloroethane	0.046 U
1,4-Dichlorobenzene	0.091 U
Benzene	0.046 U
Chlorobenzene	0.046 U
cis-1,2-Dichloroethene	0.017 J
Ethylbenzene	0.046 U
Isopropyl benzene	0.23 U
Methylene chloride	0.23 U
Styrene	0.046 U
Toluene	0.091 U
Trichloroethene	0.046 U
Vinyl chloride	0.036 U
Xylenes (total)	0.14 U
PCBs	
Total PCBs	0.25

SB18-106	8/25/2004	8/25/2004	8/25/2004	8/25/2004
	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS
VOCs				
cis-1,2-Dichloroethene	0.02 J	0.02 J	0.59	1.68 (E)
Ethylbenzene	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride	0.3 U	0.3 U	0.3 U	0.3 U
o-Xylene	0.05 U	0.05 U	0.05 U	0.05 U
p-Xylene	0.1 U	0.1 U	0.1 U	0.1 U
Toluene	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.13 (E)	0.03 J	0.04 (E)	1.03 (E)
Vinyl chloride	0.05 U	0.05 U	0.05 U	0.05 U
PCBs				
Total PCBs	0.25	0.33 U	0.33 U	0.33 U

PZ18-128	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004
	2.5-5.5 ft BGS	5.7-5.8 ft BGS	7.5-10 ft BGS	10-12.5 ft BGS	12.5-15 ft BGS	15-17.5 ft BGS	17.5-20 ft BGS
VOCs							
cis-1,2-Dichloroethene	18.4 (E,I)	64.3 (E,F,I)	20 (E,I)	23 (E,I)	0.35	0.14	0.05 U
Ethylbenzene	0.5 U	2.6 (E,I)	49 (E,I)	47 (E,I)	0.03 J	0.04 J	0.05 U
Methylene chloride	3 U	3 U	50 U	30 U	0.3 U	0.3 U	0.3 U
o-Xylene	0.2 J	7.3 (E)	80 (E)	27 (E)	0.03 J	0.07	0.05 U
p-Xylene	0.4 J	17 (E)	310 (D,E,F,H,J)	330 (D,E,F,H,J)	0.06 J	0.10 J	0.1 U
Toluene	0.3 J	1.6	20 (E,I)	22 (E,I)	0.04 J	0.04 J	0.05 U
Trichloroethene	13.1 (E,I)	36.3 (E,I)	7 (E,I)	2 (EI)	0.04 J	0.07	0.02 J
Vinyl chloride	0.5 U	0.5 U	10 U	13 (E,F,I)	3.28 (E,F,I)	4.61 (E,F,I)	0.05 U
PCBs							
Total PCBs	0.07	4.8	0.4	1	.2	0.9	0.33 U

SB18-121	8/31/2004	8/31/2004	8/31/2004	8/31/2004
	10-12.5 ft BGS	12.5-15 ft BGS	15-17.5 ft BGS	20-20 ft BGS
VOCs				
cis-1,2-D

DRAFT FOR REVIEW

N

0 10 20ft

LEGEND

TREE LINE
FENCE LINE
DITCH, STREAM OR RIVER
STORM SEWER
PAOC BOUNDARY
DNAPL DELINEATION
BURIED REFUSE DELINEATION
MONITORING WELL
SOIL BORING
GAS PROBE
PIEZOMETER
TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

SOIL CRITERIA (NON-RESIDENTIAL)

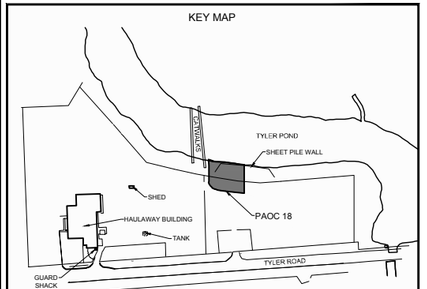
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION — SB18-85 | 8/24/2004 2.5-5 ft BGS — DATE, DEPTH
PARAMETER — VOCs | cis-1,2-Dichloroethene 0.05 U | Ethylbenzene 0.05 U | Methylene chloride 0.3 U | o-Xylene 0.05 U | p-Xylene 0.1 U | Toluene 0.05 U | Trichloroethene 0.53 (E) | Vinyl chloride 0.05 U | PCBs | Total PCBs 0.33 U — RESULT
EXCEEDANCE — Trichloroethene 0.53 (E)

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - VOCs AND PCBs
PAOC 18 - WEST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CRA CONESTOGA-ROVERS & ASSOCIATES

Source Reference:			
Project Manager: B. LANDALE	Reviewed By: M. RADULESCU	Date: JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.1B

17303-T05(008)GN-WI042 JUL 06/2011

SB18-134 | 9/9/2004 0.2-5 ft BGS | 9/9/2004 2.5-5 ft BGS
VOCs
cis-1,2-Dichloroethene 1.13 | 0.9
Ethylbenzene 0.05 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U
p-Xylene 0.1 U | 0.1 U
Toluene 0.05 U | 0.05 U
Trichloroethene 0.05 U | 0.02 J
Vinyl chloride 1.06 [E,I] | 3.65 [E,F,I]
PCBs
Total PCBs 0.33 U | 0.33 U

GS-6 EXCAVATED | 5/24/2005 2.5-3 ft BGS
VOCs
1,1,2-Trichloroethane 4.5 U
1,1-Dichloroethene 4.5 U
1,2,4-Trichlorobenzene 22 U
1,2-Dibromo-3-chloropropane (DBCP) 22 U
1,2-Dichlorobenzene 9 U
1,2-Dichloroethene 4.5 U
1,4-Dichlorobenzene 9 U
Benzene 4.5 U
Chlorobenzene 4.5 U
cis-1,2-Dichloroethene 4.5 U
Ethylbenzene 76 [E,I]
Isopropyl benzene 44 [I]
Methylene chloride 22 U
Styrene 4.5 U
Toluene 49 [E,I]
Trichloroethene 4.5 U
Vinyl chloride 400 [D,E,F,H,I,J]
PCBs
Total PCBs 3.3

PZ18-87 | 8/24/2004 0.2-5 ft BGS
VOCs
cis-1,2-Dichloroethene 7.45 [E]
Ethylbenzene 0.05 U
Methylene chloride 0.3 U
o-Xylene 0.05 U
p-Xylene 0.1 U
Toluene 0.02 J
Trichloroethene 0.06
Vinyl chloride 0.44 [E,I]
PCBs
Total PCBs 0.33 U

SB18-105 | 8/25/2004 0.3-8 BGS | 8/25/2004 3.6-8 BGS | 8/31/2004 5.7-8 BGS
VOCs
cis-1,2-Dichloroethene 228 [C,E,F,I] | 288 [C,E,F,I] | 0.12
Ethylbenzene 5 U | 5 U | 0.05 U
Methylene chloride 30 U | 30 U | 0.3 U
o-Xylene 5 U | 5 U | 0.05 U
p-Xylene 10 U | 10 U | 0.1 U
Toluene 5 U | 5 U | 0.05 U
Trichloroethene 62 [E,F,I] | 124 [E,F,I] | 0.05 U
Vinyl chloride 5 U | 5 [E,F,I] | 0.71 [E,I]
PCBs
Total PCBs 0.04 | 0.14 | 0.33 U

SB18-114 | 8/26/2004 0.2-5 ft BGS | 8/26/2004 5.5 ft BGS
VOCs
cis-1,2-Dichloroethene 1.70 [E] | NS
Ethylbenzene 0.05 U | 1 U
Methylene chloride 0.3 U | 5 U
o-Xylene 0.05 U | 1 U
p-Xylene 0.1 U | 2 U
Toluene 0.05 U | 0.6 J
Trichloroethene 0.88 [E] | 11 [E,F,I]
Vinyl chloride 0.01 J
PCBs
Total PCBs 0.33 U | 1.5

SB18-75 | 5/19/2004 | 5/19/2004
VOCs
1,1,2-Trichloroethane 4.5 U | 0.048 U
1,1-Dichloroethene 4.5 U | 0.048 U
1,2,4-Trichlorobenzene 22 U | 0.24 U
1,2-Dibromo-3-chloropropane (DBCP) 22 U | 0.24 U
1,2-Dichlorobenzene 9 U | 0.096 U
1,2-Dichloroethene 4.5 U | 0.048 U
1,4-Dichlorobenzene 9 U | 0.096 U
Benzene 4.5 U | 0.048 U
Chlorobenzene 4.5 U | 0.048 U
cis-1,2-Dichloroethene 140 [E,F,I] | 0.71
Ethylbenzene 4.5 U | 0.048 U
Isopropyl benzene 22 U | 0.24 U
Methylene chloride 5.6 [E] | 0.054 J
Styrene 4.5 U | 0.048 U
Toluene 9 U | 0.096 U
Trichloroethene 10 [E,I] | 0.048 U
Vinyl chloride 9 U | 1.4 [E,I]
Xylenes (total) 45 U | 0.48 U
PCBs
Total PCBs 0.051 | 0.4 U

SB18-113 | 8/26/2004 0.2-5 ft BGS | 8/26/2004 2.5-5 ft BGS | 8/26/2004 5.7-5 ft BGS | 8/26/2004 9.9 ft BGS
VOCs
cis-1,2-Dichloroethene 0.07 | 0.05 U | 250 [C,E,F,I] | 0.52
Ethylbenzene 0.05 U | 0.07 | 30 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U | 100 U | 0.06 J
o-Xylene 0.05 U | 0.25 | 30 U | 0.05 U
p-Xylene 0.1 U | 0.1 | 50 U | 0.01 J
Toluene 0.05 U | 0.10 | 30 U | 0.05 U
Trichloroethene 0.13 [E] | 0.05 U | 3450 [A,B,C,D,E,F,H,I,J] | 3.19 [JE]
Vinyl chloride 0.05 U | 0.14 [E] | 30 U | 1.43 [E,I]
PCBs
Total PCBs 0.33 U | 8 | 57 [D] | 0.015

PZ18-102 | 8/25/2004 0.8-0.8 ft BGS | 8/25/2004 5.4-8 BGS
VOCs
cis-1,2-Dichloroethene 229 [C,E,F,I] | 0.03 J
Ethylbenzene 5 U | 0.05 U
Methylene chloride 30 U | 0.3 U
o-Xylene 5 U | 0.05 U
p-Xylene 10 U | 0.1 U
Toluene 2 J | 0.05 U
Trichloroethene 5 U | 0.05 U
Vinyl chloride 11 [E,F,I] | 0.05 U
PCBs
Total PCBs 0.01 | 0.33 U

SB18-101 | 8/25/2004 0.3 ft BGS | 8/25/2004 3.6 ft BGS
VOCs
cis-1,2-Dichloroethene 50 [E,F,I] | 0.08
Ethylbenzene 1 U | 0.05 U
Methylene chloride 5 U | 0.3 U
o-Xylene 1 U | 0.05 U
p-Xylene 2 U | 0.1 U
Toluene 1 U | 0.05 U
Trichloroethene 6 [E,F,I] | 0.05 [E]
Vinyl chloride
PCBs
Total PCBs 0.33 U | 0.33 U

SB18-74 | 5/19/2004 0.2 ft BGS
VOCs
1,1,2-Trichloroethane 2.7 U
1,1-Dichloroethene 2.7 U
1,2,4-Trichlorobenzene 14 U
1,2-Dibromo-3-chloropropane (DBCP) 14 U
1,2-Dichlorobenzene 5.5 U
1,2-Dichloroethene 2.7 U
1,4-Dichlorobenzene 5.5 U
Benzene 2.7 U
Chlorobenzene 2.7 U
cis-1,2-Dichloroethene 72 [E,F,I]
Ethylbenzene 2.7 U
Isopropyl benzene 14 U
Methylene chloride 3.4 [JE]
Styrene 2.7 U
Toluene 5.5 U
Trichloroethene 2.7 U
Vinyl chloride 4.5 [JE,F,I]
Xylenes (total) 27 U
PCBs
Total PCBs 0.0489

SB18-103 | 5/25/2004 | 5/25/2004
VOCs
cis-1,2-Dichloroethene 63 [E,F,I] | 0.19
Ethylbenzene 1 U | 0.05 U
Methylene chloride 5 U | 0.3 U
o-Xylene 1 U | 0.05 U
p-Xylene 2 U | 0.1 U
Toluene 1 U | 0.05 U
Trichloroethene 1 U | 0.05 U
Vinyl chloride 5 [E,F,I] | 0.05 U
PCBs
Total PCBs 0.03 | 0.33 U

SB18-100 | 8/26/2004 0.2 ft BGS | 8/26/2004 2.5-5 ft BGS
VOCs
cis-1,2-Dichloroethene 37.4 [E,I] | 0.08
Ethylbenzene 0.2 J | 0.05 U
Methylene chloride 1 U | 0.3 U
o-Xylene 0.4 | 0.05 U
p-Xylene 0.5 | 0.1 U
Toluene 0.3 | 0.05 U
Trichloroethene 0.2 [E] | 0.05 U
Vinyl chloride 6.5 [E,F,I] | 0.05 U
PCBs
Total PCBs 0.03 | 0.33 U

SB18-115 | 8/26/2004 0.2-5 ft BGS | 8/25/2004 5.5 BGS
VOCs
Ethylbenzene 1 U | 1 U
Methylene chloride 5 U | 5 U
o-Xylene 1 U | 1 U
p-Xylene 2 U | 2 U
Toluene 0.8 J | 1
Trichloroethene 116 [E,F,I] | 40 [E,F,I]
Vinyl chloride 15 [E,F,I] | 17 [E,F,I]
PCBs
Total PCBs 0.05 | 0.18

SB18-99 | 8/25/2004 0.3 ft BGS | 8/25/2004 3.6 ft BGS
VOCs
cis-1,2-Dichloroethene 54.1 [E,F,I] | 0.64
Ethylbenzene 0.5 U | 0.05 U
Methylene chloride 3 U | 0.3 U
o-Xylene 0.5 U | 0.05 U
p-Xylene 1 U | 0.1 U
Toluene 0.2 J | 0.05 U
Trichloroethene 0.8 [E] | 0.20 [E]
Vinyl chloride 2.8 [E,I] | 0.13 [E]
PCBs
Total PCBs 0.07 | 0.33 U

SB18-98 | 8/25/2004 0.3 ft BGS | 8/25/2004 3.6 ft BGS
VOCs
cis-1,2-Dichloroethene 111 [E,F,I] | 0.67
Ethylbenzene 1 U | 0.05 U
Methylene chloride 5 U | 0.3 U
o-Xylene 1 U | 0.05 U
p-Xylene 2 U | 0.1 U
Toluene 1 U | 0.05 U
Trichloroethene 3 [E] | 0.06
Vinyl chloride 5 [E,F,I] | 0.05 U
PCBs
Total PCBs 0.33 U | 0.33 U

PZ18-97 | 8/25/2004 0.3 BGS | 8/25/2004 3.6 BGS
VOCs
cis-1,2-Dichloroethene 51.3 [E,F,I] | 0.33
Ethylbenzene 0.5 U | 0.05 U
Methylene chloride 3 U | 0.3 U
o-Xylene 0.5 U | 0.05 U
p-Xylene 1 U | 0.1 U
Toluene 0.2 J | 0.05 U
Trichloroethene 3.2 [E] | 0.03 J
Vinyl chloride 3.5 [E,F,I] | 0.05 U
PCBs
Total PCBs 0.33 U | 0.33 U

SB18-116 | 8/26/2004 0.2-5 ft BGS | 8/26/2004 5.5 ft BGS
VOCs
cis-1,2-Dichloroethene 52 [E,F,I] | 55 [E,F,I]
Ethylbenzene 1 [I] | 1 U
Methylene chloride 5 U | 5 U
o-Xylene 1 | 1 U
p-Xylene 4 | 1 U
Toluene 0.9 J | 2
Trichloroethene 75 [E,F,I] | NS
Vinyl chloride 2 [E,I] | 1 U
PCBs
Total PCBs 0.5 | 0.09

SB18-111 | 8/26/2004 0.2-5 ft BGS | 8/26/2004 5.5-5.7 ft BGS | 8/26/2004 5.7-5.7 ft BGS | 8/26/2004 7.5-7.5 ft BGS | 8/26/2004 8.5-8.5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.14 | 0.15 | 0.5 | 1110 [A,B,C,D,E,F,H,I,J] | 5.7 [E]
Ethylbenzene 0.05 U | 0.27 | 0.1 [E,I] | 30 [E,I] | 0.5 U
Methylene chloride 0.3 U | 0.3 U | 1 U | 100 U | 3 U
o-Xylene 0.05 U | 0.05 U | 0.1 [E] | 50 [E] | 0.5 U
p-Xylene 0.1 U | 0.4 | 20.4 [E] | 170 [D,E,F,H,J] | 1 U
Toluene 0.05 U | 0.15 | 0.5 | 60 [E,I] | 0.5 U
Trichloroethene 0.27 [E] | 0.05 U | 0.2 U | NS | 21.4 [E,I]
Vinyl chloride 0.05 U | 0.41 [E,I] | 1.6 [E,I] | 15 [E,F,I] | 4.4 [E,F,I]
PCBs
Total PCBs 0.33 U | 1 | 3 | 17 [D] | 0.33 U

SB18-112 | 8/26/2004 0.2-5 ft BGS | 8/25/2004 2.5-5 BGS | 8/26/2004 5.7-5 BGS | 8/26/2004 5.9-9 BGS
VOCs
cis-1,2-Dichloroethene 0.24 | 13.0 [E,I] | 160 [E,F,I] | 0.29
Ethylbenzene 0.05 U | 0.5 U | 4 [E,I] | 0.05 U
Methylene chloride 0.3 U | 3 U | 10 U | 0.3 U
o-Xylene 0.05 U | 0.5 U | 5 [E] | 0.05 U
p-Xylene 0.1 U | 1 U | 22 [E] | 0.1 U
Toluene 0.05 U | 0.5 U | 3 | 0.05 U
Trichloroethene 0.77 [E] | 1.3 [E] | NS | 1.56 [E]
Vinyl chloride 0.05 U | 0.5 U | 3 [E,F,I] | 0.78 [E,I]
PCBs
Total PCBs 0.33 U | 4 | 55 [D] | 0.33 U

SB18-80 | 9/23/2004 0.2-5 ft BGS | 9/23/2004 2.5-5 ft BGS | 9/23/2004 5.7-5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U | 0.08 | 10 [E]
Ethylbenzene 0.05 U | 0.05 U | 2.7 [E,I]
Methylene chloride 0.3 U | 0.3 U | 1 U
o-Xylene 0.05 U | 0.05 U | 1.2
p-Xylene 0.1 U | 0.1 U | 5.7 [E]
Toluene 0.05 U | 0.05 U | 1.1
Trichloroethene 0.02 J | 2.60 [JE] | 0.07 J
Vinyl chloride 0.05 U | 0.05 U | 3.7 [E,F,I]
PCBs
Total PCBs 0.33 U | 0.33 U | 0.03

SB18-124 | 9/1/2004 10-12.5 ft BGS | 9/1/2004 12.5-15 ft BGS | 9/1/2004 20-20 ft BGS
VOCs
cis-1,2-Dichloroethene 13.0 [E,I] | 0.4 | 0.05 U
Ethylbenzene 0.5 U | 0.2 U | 0.05 U
Methylene chloride 3 U | 1 U | 0.3 U
o-Xylene 0.5 U | 0.2 U | 0.05 U
p-Xylene 1 U | 0.4 U | 0.1 U
Toluene 0.5 U | 0.2 U | 0.05 U
Trichloroethene 68.5 [E,F,I] | 6.9 [E,I] | 0.4 [E,I]
Vinyl chloride 0.5 U | 0.3 [E,I] | 0.05 U
PCBs
Total PCBs 0.33 U | 0.33 U | 0.33 U

SB18-79 | 8/23/2004 0.2-2.5 ft BGS | 8/23/2004 2.5-5 ft BGS | 8/23/2004 5.7-5 ft BGS | 8/23/2004 7.5-10 ft BGS
VOCs
cis-1,2-Dichloroethene 0.008 J | 0.008 J | 0.05 U | 0.07
Ethylbenzene 0.05 U | 0.05 U | 0.05 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U | 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U | 0.05 U | 0.05 U
p-Xylene 0.1 U | 0.1 U | 0.1 U | 0.1 U
Toluene 0.05 U | 0.05 U | 0.05 U | 0.05 U
Trichloroethene 0.04 J | 0.06 | 0.03 J | 1.85 [E]
Vinyl chloride 0.05 U | 0.05 U | 0.05 U | 0.05 U
PCBs
Total PCBs 0.36 | 0.33 U | 0.33 U | 0.33 U

SB18-66 | 5/19/2004 0.2 ft BGS | 5/19/2004 5.10 ft BGS
VOCs
1,1,2-Trichloroethane 0.051 U | 0.5 U
1,1-Dichloroethene 0.051 U | 0.5 U
1,2,4-Trichlorobenzene 0.26 U | 2.5 U
1,2-Dibromo-3-chloropropane (DBCP) 0.26 U | 2.5 U
1,2-Dichlorobenzene 0.1 U | 1 U
1,2-Dichloroethene 0.051 U | 0.5 U
1,4-Dichlorobenzene 0.1 U | 1 U
Benzene 0.051 U | 0.25 J [H]
Chlorobenzene 0.051 U | 0.5 U
cis-1,2-Dichloroethene 0.027 J | 0.5 U
Ethylbenzene 0.051 U | 18 [E,I]
Isopropyl benzene 0.26 U | 13 [I]
Methylene chloride 0.26 U | 2.5 U
Styrene 0.051 U | 0.5 U
Toluene 0.1 U | 1.4
Trichloroethene 0.24 [E] | 0.24 [JE]
Vinyl chloride 0.1 U | 0.95 [JE,I]
Xylenes (total) 0.51 U | 16 [E,I]
PCBs
Total PCBs 0.013 | 0.49

SB18-90 | 8/24/2004 7.5-10 ft BGS
VOCs
cis-1,2-Dichloroethene 0.19
Ethylbenzene 0.05 U
Methylene chloride 0.3 U
o-Xylene 0.05 U
p-Xylene 0.1 U
Toluene 0.05 U
Trichloroethene 1.16 [E]
Vinyl chloride 0.05 U
PCBs
Total PCBs 0.33 U

SB18-12 | 11/21/2003 3-5 ft BGS | 11/21/2003 7-9 ft BGS
VOCs
1,1,2-Trichloroethane 2.4 U | 4.8 U
1,1-Dichloroethene 2.4 U | 4.8 U
1,2,4-Trichlorobenzene 12 U | 24 U
1,2-Dibromo-3-chloropropane (DBCP) 12 U | 24 U
1,2-Dichlorobenzene 4.9 U | 9.7 U
1,2-Dichloroethene 2.4 U | 4.8 U
1,4-Dichlorobenzene 4.9 U | 9.7 U
Benzene 2.4 U | 4.8 U
Chlorobenzene 2.4 U | 4.8 U
cis-1,2-Dichloroethene 89 [E,F,I] | 100 [E,F,I]
Ethylbenzene 4.8 [E,I] | 15 [E,I]
Isopropyl benzene 1.3 J | 4.5 J [I]
Methylene chloride 12 U | 10 J [E]
Styrene 2.4 U | 4.8 U
Toluene 0.76 J | 2.8 J
Trichloroethene 64 [E,F,I] | 4.8 U
Vinyl chloride 1.9 J [E,I] | 9.7 U
Xylenes (total) 49 [E,I] | 140 [E,I]
PCBs
Total PCBs 7 | 3

PZ18-127 | 9/2/2004 10-12.5 ft BGS | 9/2/2004 12.5-15 ft BGS | 9/2/2004 15-17.5 ft BGS | 9/2/2004 17.5-20 ft BGS
VOCs
cis-1,2-Dichloroethene 300 [C,E,F,I] | 565 [H,C,E,F,I] | 39.2 [E,I] | 0.02 J
Ethylbenzene 36 J[E,I] | 17 [E,I] | 0.5 U | 0.05 U
Methylene chloride 500 U | 30 U | 3 U | 0.3 U
o-Xylene 97 J[E] | 32 [E] | 0.5 U | 0.05 U
p-Xylene 200 [D,E,F,H,J] | 100 [E] | 0.9 J | 0.1 U
Toluene 54 J[E,I] | 11 [I] | 0.5 U | 0.05 U
Trichloroethene 14700 [A,B,C,D,E,F,H,I,J] | 867 [B,C,D,E,F,H,I,J] | 7.0 [E,I] | 0.23 [E]
Vinyl chloride 100 U | 5 U | 1.8 [E,I] | 2.85 [E,F,I]
PCBs
Total PCBs 158 [D] | 110 [D] | 116 [D] | 0.1

MW19-18 | 11/1/12003 0-2 ft BGS | 11/1/12003 7.5-9.5 ft BGS
VOCs
1,1,2-Trichloroethane 0.044 U | 0.15 U
1,1-Dichloroethene 0.044 U | 0.15 U
1,2,4-Trichlorobenzene 0.22 U | 0.77 U
1,2-Dibromo-3-chloropropane (DBCP) 0.22 U | 0.77 U
1,2-Dichlorobenzene 0.087 U | 0.31 U
1,2-Dichloroethene 0.044 U | 0.15 U
1,4-Dichlorobenzene 0.087 U | 0.31 U
Benzene 0.044 U | 0.15 U
Chlorobenzene 0.044 U | 0.15 U
cis-1,2-Dichloroethene 0.044 U | 0.29
Ethylbenzene 0.044 U | 0.15 U
Isopropyl benzene 0.22 U | 0.77 U
Methylene chloride 0.22 U | 0.77 U
Styrene 0.044 U | 0.15 U
Toluene 0.087 U | 0.31 U
Trichloroethene 1.3 [E] | 4.2 [E,I]
Vinyl chloride 0.087 U | 0.31 U
Xylenes (total) 0.44 U | 1.5 U
PCBs
Total PCBs 0.053 | 0.38 U

MW18-01 | 5/17/2004 0-2 ft BGS | 5/17/2004 3.5-5 BGS
VOCs
1,1,2-Trichloroethane 0.05 U | 0.047 U
1,1-Dichloroethene 0.05 U | 0.047 U
1,2,4-Trichlorobenzene 0.12 | 0.23 U
1,2-Dibromo-3-chloropropane (DBCP) 0.25 U | 0.23 U
1,2-Dichlorobenzene 0.1 U | 0.094 U
1,2-Dichloroethene 0.05 U | 0.047 U
1,4-Dichlorobenzene 0.1 U | 0.094 U
Benzene 0.05 U | 0.047 U
Chlorobenzene 0.05 U | 0.047 U
cis-1,2-Dichloroethene 0.067 | 0.15
Ethylbenzene 0.05 U | 0.047 U
Isopropyl benzene 0.25 U | 0.23 U
Methylene chloride 0.25 U | 0.23 U
Styrene 0.05 U | 0.047 U
Toluene 0.1 U | 0.094 U
Trichloroethene 0.39 [E] | 0.51 [E]
Vinyl chloride 0.1 U | 0.094 U
Xylenes (total) 0.055 J | 0.47 U
PCBs
Total PCBs 3.2 | 0.37 U

SB18-81 | 8/23/2004 0.2-5 ft BGS | 8/23/2004 2.5-5 ft BGS | 8/23/2004 5.7-5 ft BGS | 8/23/2004 7.5-10 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U | 0.05 U | 0.05 U | 2.66 [E]
Ethylbenzene 0.05 U | 0.05 U | 0.05 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U | 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U | 0.05 U | 0.05 U
p-Xylene 0.1 U | 0.1 U | 0.1 U | 0.1 U
Toluene 0.05 U | 0.05 U | 0.05 U | 0.05 U
Trichloroethene 0.05 U | 0.05 J | 0.06 | 3.09 [E]
Vinyl chloride 0.05 U | 0.05 U | 0.05 U | 0.05 U
PCBs
Total PCBs 0.03 | 0.16 | 0.33 U | 0.33 U

SB18-136 | 9/9/2004 0-2.5 ft BGS | 9/9/2004 2.5-5 ft BGS | 9/9/2004 5.7-7.5 ft BGS | 9/9/2004 7.5-10 ft BGS | 9/9/2004 10-12.5 ft BGS | 9/9/2004 12.5-15 ft BGS | 9/9/2004 15-17.5 ft BGS | 9/9/2004 17.5-20 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U | 0.05 U | 0.05 U | 1.55 [E] | 1.96 [E] | 0.04 J | 0.05 U | 0.05 U
Ethylbenzene 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U
p-Xylene 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U
Toluene 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U
Trichloroethene 0.02 J | 0.05 U | 0.05 U | 0.19 [E] | 1.3 [E] | 1.4 [E] | 0.01 J | 0.05 U
Vinyl chloride 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.19 [E] | 0.05 U | 0.05 U

MW19-17 | 11/11/2003 0-2 ft BGS | 11/11/2003 8-10 ft BGS
VOCs
1,1,2-Trichloroethane 0.045 U | 0.76 U
1,1-Dichloroethene 0.045 U | 0.76 U
1,2,4-Trichlorobenzene 0.22 U | 3.8 U
1,2-Dibromo-3-chloropropane (DBCP) 0.22 U | 3.8 U
1,2-Dichlorobenzene 0.089 U | 1.5 U
1,2-Dichloroethene 0.045 U | 0.76 U
1,4-Dichlorobenzene 0.089 U | 1.5 U
Benzene 0.045 U | 0.76 U
Chlorobenzene 0.045 U | 0.76 U
cis-1,2-Dichloroethene 0.045 U | 6.2 [E]
Ethylbenzene 0.013 J | 0.76 U
Isopropyl benzene 0.22 U | 3.8 U
Methylene chloride 0.22 U | 3.8 U
Styrene 0.045 U | 0.76 U
Toluene 0.027 J | 1.5 U
Trichloroethene 1.6 [JE] | 22 [E,I]
Vinyl chloride 0.089 U | 1.5 U
Xylenes (total) 0.088 J | 7.6 U
PCBs
Total PCBs 0.152 | 0.37 U

SB18-129 | 9/2/2004 7.5-10 ft BGS | 9/2/2004 17-19 ft BGS | 9/2/2004 20-20 ft BGS
VOCs
cis-1,2-Dichloroethene 4.35 [E] | 8.76 [E] | 45 [E,F,I]
Ethylbenzene 0.05 U | 0.16 | 5 U
Methylene chloride 0.3 U | 0.3 U | 30 U
o-Xylene 0.05 U | 0.05 | 5 U
p-Xylene 0.1 U | 0.3 | 10 U
Toluene 0.02 J | 0.40 | 4 J
Trichloroethene 0.02 J | NS | 349 [C,E,F,I]
Vinyl chloride 0.19 [E] | 0.54 [E,I] | 5 U
PCBs
Total PCBs 0.33 U | 0.33 U | 0.33 U

SB18-88 | 8/24/2004 0-2.5 ft BGS | 8/24/2004 2.5-5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.02 J | 0.44
Ethylbenzene 0.05 U | 0.05 U
Methylene chloride 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U
p-Xylene 0.1 U | 0.1 U
Toluene 0.05 U | 0.05 U
Trichloroethene 0.07 | 0.06
Vinyl chloride 0.05 U | 0.05 U
PCBs
Total PCBs 0.33 U | 0.33 U

SB18-62A | 8/23/2004 0-2.5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U
Ethylbenzene 0.05 U
Methylene chloride 0.3 U
o-Xylene 0.05 U
p-Xylene 0.1 U
Toluene 0.05 U
Trichloroethene 0.05 U
Vinyl chloride 0.05 U
PCBs
Total PCBs 0.33 U

SB18-86 | 8/24/2004 2.5-5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U
Ethylbenzene 0.05 U
Methylene chloride 0.3 U
o-Xylene 0.05 U
p-Xylene 0.1 U
Toluene 0.05 U
Trichloroethene 0.03 J
Vinyl chloride 0.05 U
PCBs
Total PCBs 0.33 U

MW18-02 | 5/17/2004 0-2 ft BGS | 5/17/2004 3.5 ft BGS
VOCs
1,1,2-Trichloroethane 0.058 U | 0.05 U
1,1-Dichloroethene 0.058 U | 0.05 U
1,2,4-Trichlorobenzene 0.11 J | 0.25 U
1,2-Dibromo-3-chloropropane (DBCP) 0.29 U | 0.25 U
1,2-Dichlorobenzene 0.12 U | 0.1 U
1,2-Dichloroethene 0.058 U | 0.05 U
1,4-Dichlorobenzene 0.12 U | 0.1 U
Benzene 0.058 U | 0.05 U
Chlorobenzene 0.058 U | 0.05 U
cis-1,2-Dichloroethene 0.058 U | 0.05 U
Ethylbenzene 0.058 U | 0.05 U
Isopropyl benzene 0.29 U | 0.25 U
Methylene chloride 0.29 U | 0.25 U
Styrene 0.058 U | 0.05 U
Toluene 0.12 U | 0.1 U
Trichloroethene 0.076 | 0.22 [E]
Vinyl chloride 0.12 U | 0.1 U
Xylenes (total) 0.58 U | 0.5 U
PCBs
Total PCBs 1.6 | 0.38 U

SB18-135 | 9/9/2004 0-2.5 ft BGS | 9/9/2004 2.5-5 ft BGS | 9/9/2004 5.7-5 ft BGS | 9/9/2004 7.5-10 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U | 0.01 J | 1.82 [E] | 0.54
Ethylbenzene 0.05 U | 0.05 U | 0.05 U | 0.03 J
Methylene chloride 0.3 U | 0.3 U | 0.3 U | 0.3 U
o-Xylene 0.05 U | 0.05 U | 0.05 U | 0.03 J
p-Xylene 0.1 U | 0.1 U | 0.1 U | 0.02 J
Toluene 0.05 U | 0.05 U | 0.02 J | 0.05 U
Trichloroethene 0.05 U | 0.43 [E] | 8.53 [E,I] | 3.4 [E]
Vinyl chloride 0.05 U | 0.05 U | 0.14 [E] | 0.19 [E]

SB18-85 | 8/24/2004 2.5-5 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U
Ethylbenzene 0.05 U
Methylene chloride 0.3 U
o-Xylene 0.05 U
p-Xylene 0.1 U
Toluene 0.05 U
Trichloroethene 0.53 [E]
Vinyl chloride 0.05 U
PCBs
Total PCBs 0.33 U

SB18-78 | 8/23/2004 0-2.5 ft BGS | 8/23/2004 2.5-5 ft BGS | 8/23/2004 5.7-5 ft BGS | 8/23/2004 7.5-10 ft BGS
VOCs
cis-1,2-Dichloroethene 0.05 U | 0.05 U | 0.11 | 1.5 [E]
Ethylbenzene 0.05 U | 0.05 U | 0.05 U | 0.5 U
Methylene chloride 0.3 U | 0.3 U | 0.3 U | 3 U
o-Xylene 0.05 U | 0.05 U | 0.05 U | 0.5 U
p-Xylene 0.1 U | 0.1 U | 0.1 U | 1 U
Toluene 0.05 U | 0.05 U | 0.05 U | 0.5 U
Trichloroethene 0.006 J | 0.01 J | 2.92 [E] | 24.7 [E,I]
Vinyl chloride 0.05 U | 0.05 U | 0.05 U | 0.5 U
PCBs
Total PCBs 0.33 U | 0.33 U | 0.33 U | 0.33 U

SB18-122 | 9/1/2004 0-2.5 ft BGS | 9/1/2004 2.5-5 ft BGS | 9/1/2004 5.7-5 ft BGS | 9/1/2004 7.5-10 ft BGS | 9/1/2004 10-12.5 ft BGS | 9/1/2004 12.5-15 ft BGS | 9/1/2004 15-17.5 ft BGS | 9/1/2004 17.5-20 ft BGS
VOCs
cis-1,2-Dichloroethene 5.2 [E] | 18.4 [E,I] | 53.0 [E,F,I] | 60 [E,F,I] | 10 U | 0.05 U | 0.06 | 0.05 U
Ethylbenzene 0.5 U | 0.8 [I] | 1.2 [I] | 3 U | 50 U | 0.3 U | 0.3 U | 0.3 U
Methylene chloride 3 U | 3 U | 3 U | 30 U | 500 U | 3 U | 3 U | 3 U
o-Xylene 0.5 U | 0.06 J | 0.5 U | 3 U | 50 U | 0.3 U | 0.3 U | 0.3 U
p-Xylene 1 U | 1 | 1 | 6 U | 100 U | 0.6 U | 0.6 U | 0.6 U
Toluene 0.5 U | 0.5 U | 1.3 | 3 U | 50 U | 0.3 U | 0.3 U | 0.3 U
Trichloroethene 32.4 [E,I] | 56.3 [E,F,I] | 19.5 [E,I] | 3 U | 300 [C,E,F,I] | 2 U | 2 U | 0.08
Vinyl chloride 0.5 U | 0.5 U | 0.5 U | 3 U | 50 U | 0.3 U | 0.3 U | 0.3 U
PCBs
Total PCBs 3.5 | 3 | 0.33 U | 0.33 U | 0.33 U | 0.33 U | 0.33 U | 0.33 U

SB18-123 | 9/1/2004 0-2.5 ft BGS | 9/1/2004 2.5-5 ft BGS | 9/1/2004 5.7-5 ft BGS | 9/1/2004 7.5-10 ft BGS | 9/1/2004 10-12.5 ft BGS | 9/1/2004 12.5-15 ft BGS | 9/1/2004 15-17.5 ft BGS | 9/1/2004 17.5-20 ft BGS
VOCs
cis-1,2-Dichloroethene 0.06 | 0.13 | 0.2 U | 0.3 | 25.5 [E,I] | NS | 42.4 [E,F,I] | 0.11
Ethylbenzene 0.009 J | 0

DRAFT FOR REVIEW

N

0 10 20ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- DNAPL DELINEATION
- BURIED REFUSE DELINEATION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

- THE REPORTED CONCENTRATION MAY BE EITHER 3 METHYLPHENOL AND/OR 4 METHYLPHENOL

SOIL CRITERIA (NON-RESIDENTIAL):

A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

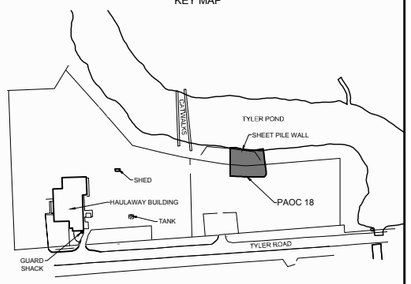
LOCATION — PARAMETER — DATE — DEPTH — RESULT — EXCEEDANCE

SB-18-27	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	29 (I)
Acenaphthene	7.8 U
Acenaphthylene	9.8
Anthracene	7.8 U
Benzo(a)anthracene	7.8 U
Benzo(a)pyrene	7.8 U
Benzo(b)fluoranthene	7.8 U
Benzo(k)fluoranthene	7.8 U
Dibenz(a,h)anthracene	7.8 U
Fluoranthene	7.8 U
Fluorene	14 (I)
Indeno(1,2,3-cd)pyrene	7.8 U
Naphthalene	10 (I)
Phenanthrene	13 (I)

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - SVOCs
PAOC 18 - EAST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CRA CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.2A

17303-T05(008)GN-WI014 JUL 06/2011

SB18-72	5/24/2004 0-2 ft BGS	5/24/2004 2-4 ft BGS
SVOCs		
2,4-Dimethylphenol	1.5 U	0.39 U
2-Methylnaphthalene	1.5 U	0.39 U
4-Methylphenol	1.5 U	0.39 U
Acenaphthene	1.5 U	0.39 U
Acenaphthylene	1.5 U	0.39 U
Anthracene	1.5 U	0.39 U
Benzo(a)anthracene	1.5 U	0.39 U
Benzo(a)pyrene	1.5 U	0.39 U
Benzo(b)fluoranthene	1.5 U	0.39 U
Benzo(k)fluoranthene	1.5 U	0.39 U
Carbazole	1.5 U	0.39 U
Dibenz(a,h)anthracene	1.5 U	0.39 U
Dibenzofuran	1.5 U	0.39 U
Di-n-butylphthalate (DBP)	1.5 U	0.39 U
Fluoranthene	0.092 J	0.39 U
Fluorene	1.5 U	0.39 U
Indeno(1,2,3-cd)pyrene	1.5 U	0.39 U
Naphthalene	1.5 U	0.39 U
Phenanthrene	0.071 J	0.39 U
Phenol	1.5 U	0.39 U

SB-18-33	12/1/1996 0.5-2 ft BGS	12/1/1996 4-6 ft BGS	12/1/1996 8-10 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	0.33 U	0.33 U
Acenaphthene	0.33 U	0.33 U	0.33 U
Acenaphthylene	0.33 U	0.33 U	0.33 U
Anthracene	0.33 U	0.33 U	0.33 U
Benzo(a)anthracene	0.8	0.33 U	0.33 U
Benzo(a)pyrene	0.33 U	0.33 U	0.33 U
Benzo(b)fluoranthene	0.33 U	0.33 U	0.33 U
Benzo(k)fluoranthene	0.33 U	0.33 U	0.33 U
Dibenz(a,h)anthracene	0.33 U	0.33 U	0.33 U
Fluoranthene	1.8	0.33 U	0.33 U
Fluorene	0.33 U	0.33 U	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U	0.33 U	0.33 U
Naphthalene	0.33 U	0.33 U	0.33 U
Phenanthrene	0.66	0.33 U	0.33 U

B-11	4/9/2003
SVOCs	
2,4-Dimethylphenol	0.43 U
2-Methylnaphthalene	0.43 U
Acenaphthene	0.43 U
Acenaphthylene	0.43 U
Anthracene	0.43 U
Benzo(a)anthracene	0.43 U
Benzo(a)pyrene	0.43 U
Benzo(b)fluoranthene	0.43 U
Benzo(k)fluoranthene	0.43 U
Carbazole	0.43 U
Dibenz(a,h)anthracene	0.43 U
Dibenzofuran	0.43 U
Di-n-butylphthalate (DBP)	0.43 U
Fluoranthene	0.43 U
Fluorene	0.43 U
Indeno(1,2,3-cd)pyrene	0.43 U
Naphthalene	0.43 U
Phenanthrene	0.43 U
Phenol	0.43 U

SB-18-45	12/1/1996 4-6 ft BGS
SVOCs	
2-Methylnaphthalene	0.35 U
Acenaphthene	0.35 U
Acenaphthylene	0.35 U
Anthracene	0.35 U
Benzo(a)anthracene	0.35 U
Benzo(a)pyrene	0.35 U
Benzo(b)fluoranthene	0.35 U
Benzo(k)fluoranthene	0.35 U
Dibenz(a,h)anthracene	0.35 U
Fluoranthene	0.35 U
Fluorene	0.35 U
Indeno(1,2,3-cd)pyrene	0.35 U
Naphthalene	0.35 U
Phenanthrene	0.35 U

SB-18-37	12/1/1996 0-0.5 ft BGS	12/1/1996 2-4 ft BGS	12/1/1996 10-12 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	1.7	0.33 U
Acenaphthene	0.33 U	0.76	0.33 U
Acenaphthylene	0.33 U	2.6	0.33 U
Anthracene	0.33 U	5.6	0.33 U
Benzo(a)anthracene	1.2	7.2	0.33 U
Benzo(a)pyrene	1.8	4.2	0.33 U
Benzo(b)fluoranthene	1.7	7.2	0.33 U
Benzo(k)fluoranthene	1.8	3.3 U	0.33 U
Dibenz(a,h)anthracene	0.33 U	3.3 U	0.33 U
Fluoranthene	1.7	14 (I)	0.33 U
Fluorene	0.33 U	3.3	0.33 U
Indeno(1,2,3-cd)pyrene	2.4	3.6	0.33 U
Naphthalene	0.33 U	6 (I)	0.33 U
Phenanthrene	0.52	11 (I)	0.33 U

SB-18-36	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB18-71	5/24/2004 0-2 ft BGS
SVOCs	
2,4-Dimethylphenol	0.42 U
2-Methylnaphthalene	0.42 U
4-Methylphenol	0.42 U
Acenaphthene	0.42 U
Acenaphthylene	0.42 U
Anthracene	0.42 U
Benzo(a)anthracene	0.42 U
Benzo(a)pyrene	0.42 U
Benzo(b)fluoranthene	0.42 U
Benzo(k)fluoranthene	0.42 U
Carbazole	0.42 U
Dibenz(a,h)anthracene	0.42 U
Dibenzofuran	0.42 U
Di-n-butylphthalate (DBP)	0.42 U
Fluoranthene	0.42 U
Fluorene	0.42 U
Indeno(1,2,3-cd)pyrene	0.42 U
Naphthalene	0.42 U
Phenanthrene	0.42 U
Phenol	0.42 U

SB-18-38	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-41	12/1/1996 0-0.5 ft BGS	12/1/1996 0.5-2 ft BGS	12/1/1996 10-12 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	0.33 U	0.33 U
Acenaphthene	0.33 U	0.33 U	0.33 U
Acenaphthylene	0.33 U	0.33 U	0.33 U
Anthracene	0.33 U	0.33 U	0.33 U
Benzo(a)anthracene	0.33 U	0.33 U	0.33 U
Benzo(a)pyrene	0.33 U	0.33 U	0.33 U
Benzo(b)fluoranthene	0.36	0.33 U	0.33 U
Benzo(k)fluoranthene	0.33 U	0.33 U	0.33 U
Dibenz(a,h)anthracene	0.33 U	0.33 U	0.33 U
Fluoranthene	0.44	0.33 U	0.33 U
Fluorene	0.33 U	0.33 U	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U	0.33 U	0.33 U
Naphthalene	0.33 U	0.33 U	0.33 U
Phenanthrene	0.33 U	0.33 U	0.33 U

SB19-16	11/14/2003 0-2 ft BGS	11/14/2003 4-6 ft BGS
SVOCs		
2,4-Dimethylphenol	0.36 U	0.4 U
2-Methylnaphthalene	0.36 U	0.4 U
4-Methylphenol	0.36 U	0.4 U
Acenaphthene	0.36 U	0.4 U
Acenaphthylene	0.36 U	0.4 U
Anthracene	0.36 U	0.4 U
Benzo(a)anthracene	0.36 U	0.4 U
Benzo(a)pyrene	0.36 U	0.4 U
Benzo(b)fluoranthene	0.36 U	0.4 U
Benzo(k)fluoranthene	0.36 U	0.4 U
Carbazole	0.36 U	0.4 U
Dibenz(a,h)anthracene	0.36 U	0.4 U
Dibenzofuran	0.36 U	0.4 U
Di-n-butylphthalate (DBP)	0.36 U	0.4 U
Fluoranthene	0.36 U	0.4 U
Fluorene	0.36 U	0.4 U
Indeno(1,2,3-cd)pyrene	0.36 U	0.4 U
Naphthalene	0.36 U	0.4 U
Phenanthrene	0.36 U	0.4 U
Phenol	0.36 U	0.4 U

SB-18-40	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-41A	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-48	12/1/1996 0.5-2 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-43	12/1/1996 0-0.5 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.83
Anthracene	1.6
Benzo(a)anthracene	3 U
Benzo(a)pyrene	3 U
Benzo(b)fluoranthene	4.1
Benzo(k)fluoranthene	3 U
Dibenz(a,h)anthracene	3 U
Fluoranthene	4.4
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	3 U
Naphthalene	0.33 U
Phenanthrene	2.5 (I)

SB18-76	5/24/2004 0-2 ft BGS	5/24/2004 10-12 ft BGS
SVOCs		
2,4-Dimethylphenol	0.36 U	0.37 U
2-Methylnaphthalene	0.36 U	0.37 U
4-Methylphenol	0.36 U	0.37 U
Acenaphthene	0.36 U	0.37 U
Acenaphthylene	0.36 U	0.37 U
Anthracene	0.36 U	0.37 U
Benzo(a)anthracene	0.36 U	0.37 U
Benzo(a)pyrene	0.36 U	0.37 U
Benzo(b)fluoranthene	0.36 U	0.37 U
Benzo(k)fluoranthene	0.36 U	0.37 U
Carbazole	0.36 U	0.37 U
Dibenz(a,h)anthracene	0.36 U	0.37 U
Dibenzofuran	0.36 U	0.37 U
Di-n-butylphthalate (DBP)	0.36 U	0.37 U
Fluoranthene	0.36 U	0.022 J
Fluorene	0.36 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.36 U	0.37 U
Naphthalene	0.36 U	0.37 U
Phenanthrene	0.36 U	0.025 J
Phenol	0.36 U	0.37 U

TP-A60	6/14/2005 12-12 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.26 U
4-Methylphenol	0.26 U
Acenaphthene	0.26 U
Acenaphthylene	0.26 U
Anthracene	0.26 U
Benzo(a)anthracene	0.26 U
Benzo(a)pyrene	0.26 U
Benzo(b)fluoranthene	0.26 U
Benzo(k)fluoranthene	0.26 U
Carbazole	0.26 U
Dibenz(a,h)anthracene	0.26 U
Dibenzofuran	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.26 U
Fluorene	0.26 U
Indeno(1,2,3-cd)pyrene	0.26 U
Naphthalene	0.26 U
Phenanthrene	0.26 U
Phenol	0.26 U

TP-A39	6/14/2005 11-11 ft BGS
SVOCs	
2,4-Dimethylphenol	1.8 U
2-Methylnaphthalene	0.63 J
4-Methylphenol	0.15 J#
Acenaphthene	1.8 U
Acenaphthylene	1.8 U
Anthracene	1.8 U
Benzo(a)anthracene	1.8 U
Benzo(a)pyrene	1.8 U
Benzo(b)fluoranthene	1.8 U
Benzo(k)fluoranthene	1.8 U
Carbazole	1.8 U
Dibenz(a,h)anthracene	1.8 U
Dibenzofuran	1.8 U
Di-n-butylphthalate (DBP)	4.7
Fluoranthene	0.13 J
Fluorene	0.09 J
Indeno(1,2,3-cd)pyrene	1.8 U
Naphthalene	0.65 J
Phenanthrene	0.5 J
Phenol	0.34 J

SB-18-29	12/1/1996 8.2-11 ft BGS
SVOCs	
2-Methylnaphthalene	1.9
Acenaphthene	0.33 U
Acenaphthylene	3.3 U
Anthracene	0.33 U
Benzo(a)anthracene	3.3 U
Benzo(a)pyrene	3.3 U
Benzo(b)fluoranthene	3.3 U
Benzo(k)fluoranthene	3.3 U
Dibenz(a,h)anthracene	3.3 U
Fluoranthene	3.3 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	3.3 U
Naphthalene	3.3 U
Phenanthrene	0.33 U

SB-18-26	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-28	12/1/1996 0-0.5 ft BGS	12/1/1996 6-8 ft BGS	12/1/1996 10-12 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	0.33 U	2.4
Acenaphthene	0.33 U	0.33 U	6.7 U
Acenaphthylene	0.33 U	0.33 U	6.7 U
Anthracene	0.33 U	0.33 U	6.7 U
Benzo(a)anthracene	0.69	0.33 U	6.7 U
Benzo(a)pyrene	0.95	0.33 U	6.7 U
Benzo(b)fluoranthene	1.8	0.33 U	6.7 U
Benzo(k)fluoranthene	0.33 U	0.33 U	6.7 U
Dibenz(a,h)anthracene	0.33 U	0.33 U	6.7 U
Fluoranthene	1.9	0.33 U	6.7 U
Fluorene	0.33 U	0.33 U	6.7 U
Indeno(1,2,3-cd)pyrene	1.1	0.33 U	6.7 U
Naphthalene	0.33 U	0.33 U	6.7 U
Phenanthrene	0.97	0.33 U	6.7 U

SB19-13	11/21/2003 0-2 ft BGS	11/21/2003 2-4 ft BGS	11/21/2003 8-10 ft BGS
SVOCs			
2,4-Dimethylphenol	1.8 U	1.8 U	84 U
2-Methylnaphthalene	4.6 (I)	4.4 (I)	32 J(I)
4-Methylphenol	1.8 U	1.8 U	16 J(I)
Acenaphthene	0.22 J	0.2 J	84 U
Acenaphthylene	1.8 U	0.43 J	84 U
Anthracene	0.49 J	0.48 J	84 U
Benzo(a)anthracene	1.8 U	1.8 U	84 U
Benzo(a)pyrene	1.8 U	1.8 U	84 U
Benzo(b)fluoranthene	1.8 U	1.8 U	84 U
Benzo(k)fluoranthene	1.8 U	1.8 U	84 U
Carbazole	1.8 U	1.8 U	84 U
Dibenz(a,h)anthracene	1.8 U	1.8 U	84 U
Dibenzofuran	1.8 U	1.8 U	84 U
Di-n-butylphthalate (DBP)	0.41 J	0.44 J	320 (I)
Fluoranthene	0.61 J	0.67 J	21 J(I)
Fluorene	0.74 J	0.7 J	84 U
Indeno(1,2,3-cd)pyrene	1.8 U	1.8 U	84 U
Naphthalene	2 (I)	1.9 (I)	93 (I)
Phenanthrene	1.1 J	1.1 J	25 J(I)
Phenol	1.8 U	1.8 U	49 J(I)

SB18-68	5/19/2004 0-2 ft BGS	5/19/2004 9-11 ft BGS
SVOCs		
2,4-Dimethylphenol	0.36 U	0.39 U
2-Methylnaphthalene	0.031 J	0.061 J
4-Methylphenol	0.36 U	0.39 U
Acenaphthene	0.36 U	0.39 U
Acenaphthylene	0.36 U	0.39 U
Anthracene	0.36 U	0.39 U
Benzo(a)anthracene	0.044 J	0.39 U
Benzo(a)pyrene	0.06 J	0.39 U
Benzo(b)fluoranthene	0.087 J	0.39 U
Benzo(k)fluoranthene	0.033 J	0.39 U
Carbazole	0.36 U	0.39 U
Dibenz(a,h)anthracene	0.36 U	0.39 U
Dibenzofuran	0.36 U	0.39 U
Di-n-butylphthalate (DBP)	0.36 U	0.051 J
Fluoranthene	0.072 J	0.39 U
Fluorene	0.36 U	0.39 U
Indeno(1,2,3-cd)pyrene	0.044 J	0.39 U
Naphthalene	0.36 U	0.12 J
Phenanthrene	0.36 U	0.39 U
Phenol	0.36 U	0.023 J

SB18-69	5/19/2004 0-2 ft BGS	5/19/2004 4.6-8 ft BGS
SVOCs		
2,4-Dimethylphenol	0.35 U	0.37 U
2-Methylnaphthalene	0.35 U	0.37 U
4-Methylphenol	0.35 U	0.37 U
Acenaphthene	0.35 U	0.37 U
Acenaphthylene	0.35 U	0.37 U
Anthracene	0.35 U	0.37 U
Benzo(a)anthracene	0.35 U	0.37 U
Benzo(a)pyrene	0.35 U	0.37 U
Benzo(b)fluoranthene	0.35 U	0.37 U
Benzo(k)fluoranthene	0.35 U	0.37 U
Carbazole	0.35 U	0.37 U
Dibenz(a,h)anthracene	0.35 U	0.37 U
Dibenzofuran	0.35 U	0.37 U
Di-n-butylphthalate (DBP)	0.35 U	0.37 U
Fluoranthene	0.35 U	0.37 U
Fluorene	0.35 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.35 U	0.37 U
Naphthalene	0.35 U	0.37 U
Phenanthrene	0.35 U	0.37 U
Phenol	0.35 U	0.37 U

SB-18-31	12/1/1996 2.2-4.2 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB-18-35	12/1/1996 2.2-4.2 ft BGS	12/1/1996 8.2-10.2 ft BGS
SVOCs		
2-Methylnaphthalene	290 [E,I]	6 (I)
Acenaphthene	41 (I)	2.8 U
Acenaphthylene	40 U	2.8 U
Anthracene	40 U	2.8 U
Benzo(a)anthracene	40 U	2.8 U
Benzo(a)pyrene	40 U	2.8 U
Benzo(b)fluoranthene	40 U	2.8 U
Benzo(k)fluoranthene	40 U	2.8 U
Dibenz(a,h)anthracene	40 U	2.8 U
Fluoranthene	40 U	9.1 (I)
Fluorene	55 (I)	2.8 U
Indeno(1,2,3-cd)pyrene	40 U	2.8 U
Naphthalene	150 [E,I]	2.8 U
Phenanthrene	81 (I)	2.8 U

SB-18-39	12/1/1996 2.2-4.2 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

SB18-77	5/24/2004 0-2 ft BGS	5/24/2004 9-10 ft BGS
SVOCs		
2,4-Dimethylphenol	0.36 U	0.36 U
2-Methylnaphthalene	0.36 U	0.36 U
4-Methylphenol	0.36 U	0.36 U
Acenaphthene	0.36 U	0.36 U
Acenaphthylene	0.36 U	0.36 U
Anthracene	0.36 U	0.36 U
Benzo(a)anthracene	0.36 U	0.36 U
Benzo(a)pyrene	0.36 U	0.36 U
Benzo(b)fluoranthene	0.36 U	0.36 U
Benzo(k)fluoranthene	0.36 U	0.36 U
Carbazole	0.36 U	0.36 U
Dibenz(a,h)anthracene	0.36 U	0.36 U
Dibenzofuran	0.36 U	0.36 U
Di-n-butylphthalate (DBP)	0.36 U	0.36 U
Fluoranthene	0.36 U	0.36 U
Fluorene	0.36 U	0.36 U
Indeno(1,2,3-cd)pyrene	0.36 U	0.36 U
Naphthalene	0.36 U	0.36 U
Phenanthrene	0.36 U	0.36 U
Phenol	0.36 U	0.36 U

SB18-203	6/2/2005 0-3 ft BGS	6/2/2005 3-6 ft BGS	6/2/2005 6-9 ft BGS	6/2/2005 9-12 ft BGS
SVOCs				
2,4-Dimethylphenol	0.26 U	0.66 U	5.3 U	1.3 U
2-Methylnaphthalene	0.26 U	0.66 U	0.69 J	1.3 U
4-Methylphenol	0.26 U	0.66 UJ	5.3 U	1.3 U
Acenaphthene	0.26 U	0.66 U	5.3 U	1.3 U
Acenaphthylene	0.26 U	0.66 U	5.3 U	1.3 U
Anthracene	0.26 U	0.66 U	5.3 U	1.3 U
Benzo(a)anthracene	0.26 U	0.66 U	5.3 U	1.3 U
Benzo(a)pyrene	0.26 U	0.66 U	5.3 U	1.3 U
Benzo(b)fluoranthene	0.26 U	0.66 U	5.3 U	1.3 U
Benzo(k)fluoranthene	0.26 U	0.66 U	5.3 U	1.3 U
Carbazole	0.26 U	0.66 U	5.3 U	1.3 U
Dibenz(a,h)anthracene	0.26 U	0.66 U	5.3 U	1.3 U
Dibenzofuran	0.26 U	0.66 U	5.3 U	1.3 U
Di-n-butylphthalate (DBP)	0.26 U	0.66 U	5.3 U	1.3 U
Fluoranthene	0.26 U	0.66 U	5.3 U	1.3 U
Fluorene	0.26 U	0.66 U	0.33 J	1.3 U
Indeno(1,2,3-cd)pyrene	0.26 U	0.66 U	5.3 U	1.3 U
Naphthalene	0.26 U	0.66 U	5.3 U	1.3 U
Phenanthrene	0.26 U	0.66 U	0.56 J	1.3 U
Phenol	0.26 U	0.66 UJ	5.3 U	1.3 U

SB18-70	5/19/2004 0-2 ft BGS	5/19/2004 5-6 ft BGS	5/19/2004 10-12 ft BGS
SVOCs			
2,4-Dimethylphenol	1.4 U	49 J(E,I)	9.2 U
2-Methylnaphthalene	2.3	100 J(I)	9.2 U
4-Methylphenol	1.4 U	110 U	9.2 U
Acenaphthene	0.12 J	110 U	9.2 U
Acenaphthylene	1.4 U	110 U	9.2 U
Anthracene	0.14 J	4.6 J	9.2 U
Benzo(a)anthracene	0.34 J	110 U	9.2 U
Benzo(a)pyrene	0.42 J	110 U	9.2 U
Benzo(b)fluoranthene	0.63 J	110 U	9.2 U
Benzo(k)fluoranthene	0.28 J	110 U	9.2 U
Carbazole	1.4 U	110 U	9.2 U
Dibenz(a,h)anthracene	0.11 J	110 U	9.2 U
Dibenzofuran	1.4 U	110 U	9.2 U
Di-n-butylphthalate (DBP)	1.4 U	10 J	9.2 U
Fluoranthene	0.8 J	110 U	9.2 U
Fluorene	0.16 J	110 U	9.2 U
Indeno(1,2,3-cd)pyrene	0.28 J	110 U	9.2 U
Naphthalene	1.1 J(I)	120 [E,I]	9.2 U
Phenanthrene	0.55 J	14 J(I)	9.2 U
Phenol	1.4 U	110 U	9.2 U

DRAFT FOR REVIEW

N

0 10 20ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- DNAPL DELINEATION
- BURIED REFUSE DELINEATION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

SOIL CRITERIA (NON-RESIDENTIAL)

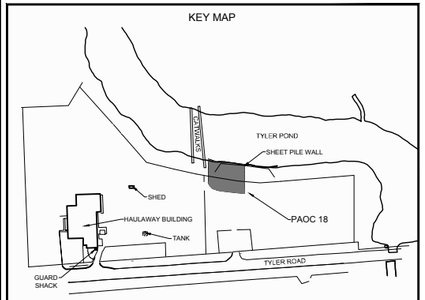
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION	GS-6	5/24/2005	DATE
		2.5-3 ft BGS	DEPTH
PARAMETER	SVOCs		
	2,4-Dimethylphenol	89 J(E,I)	RESULT
	2-Methylnaphthalene	1300 (E,I)	
	4-Methylphenol	250 U	
	Acenaphthene	73 J(I)	
	Acenaphthylene	250 U	
	Anthracene	68 J(E,H)	
	Benzo(a)anthracene	250 U	
	Benzo(a)pyrene	250 U	
	Benzo(b)fluoranthene	250 U	
	Benzo(k)fluoranthene	250 U	
	Carbazole	250 U	
	Dibenz(a,h)anthracene	250 U	
	Dibenzofuran	250 U	
	Di-n-butylphthalate (DBP)	26 J(I)	EXCEEDANCE
	Fluoranthene	29 J(I)	
	Fluorene	250 U	
	Indeno(1,2,3-cd)pyrene	250 U	
	Naphthalene	330 (E,I)	
	Phenanthrene	170 J(E,I)	
	Phenol	250 U	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SB18-218 EXCAVATED	8/16/2005 0-2 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U/0.26 U
2-Methylnaphthalene	0.065 J/0.079 J
Acenaphthene	0.26 U/0.26 U
Anthracene	0.26 U/0.26 U
Di-n-butylphthalate (DBP)	0.26 U/0.26 U
Fluoranthene	0.26 U/0.014 J
Naphthalene	0.26 U/0.022 J
Phenanthrene	0.074 J/0.054 J

SB18-209 EXCAVATED	8/11/2005 2-3 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.32
Acenaphthene	0.032 J
Anthracene	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.047 J
Naphthalene	0.073 J
Phenanthrene	0.12 J

GS-6 EXCAVATED	5/24/2005 2.5-3 ft BGS
SVOCs	
2,4-Dimethylphenol	89 J(E,I)
2-Methylnaphthalene	1300 (E,I)
4-Methylphenol	250 U
Acenaphthene	73 J(I)
Acenaphthylene	250 U
Anthracene	68 J(E,H)
Benzo(a)anthracene	250 U
Benzo(a)pyrene	250 U
Benzo(b)fluoranthene	250 U
Benzo(k)fluoranthene	250 U
Carbazole	250 U
Dibenz(a,h)anthracene	250 U
Dibenzofuran	250 U
Di-n-butylphthalate (DBP)	26 J(I)
Fluoranthene	29 J(I)
Fluorene	250 U
Indeno(1,2,3-cd)pyrene	250 U
Naphthalene	330 (E,I)
Phenanthrene	170 J(E,I)
Phenol	250 U

SB18-211 EXCAVATED	8/11/2005 1.5-2.5 ft BGS
SVOCs	
2,4-Dimethylphenol	1.1 U
2-Methylnaphthalene	0.63 J
Acenaphthene	1.1 U
Anthracene	1.1 U
Di-n-butylphthalate (DBP)	1.1 U
Fluoranthene	1.1 U
Naphthalene	0.2 J
Phenanthrene	0.2 J

SB18-210 EXCAVATED	8/11/2005 1.5-2.5 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.056 J
Acenaphthene	0.26 U
Anthracene	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.054 J
Naphthalene	0.26 U
Phenanthrene	0.068 J

SB-22	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.43
Acenaphthene	0.38 U
Acenaphthylene	0.38 U
Anthracene	0.38 U
Benzo(a)anthracene	0.63
Benzo(a)pyrene	0.38 U
Benzo(b)fluoranthene	0.59
Benzo(k)fluoranthene	0.59
Dibenz(a,h)anthracene	0.38 U
Fluoranthene	0.67
Fluorene	0.38 U
Indeno(1,2,3-cd)pyrene	0.43
Naphthalene	0.38 U
Phenanthrene	0.44

SB18-75	5/19/2004 0-2 ft BGS	5/19/2004 4-5 ft BGS
SVOCs		
2,4-Dimethylphenol	0.37 U	0.4 U
2-Methylnaphthalene	0.37 U	0.4 U
4-Methylphenol	0.37 U	0.4 U
Acenaphthene	0.37 U	0.4 U
Acenaphthylene	0.37 U	0.4 U
Anthracene	0.37 U	0.4 U
Benzo(a)anthracene	0.068 J	0.4 U
Benzo(a)pyrene	0.077 J	0.4 U
Benzo(b)fluoranthene	0.13 J	0.4 U
Benzo(k)fluoranthene	0.05 J	0.4 U
Carbazole	0.37 U	0.4 U
Dibenz(a,h)anthracene	0.37 U	0.4 U
Dibenzofuran	0.37 U	0.4 U
Di-n-butylphthalate (DBP)	0.37 U	0.4 U
Fluoranthene	0.22 J	0.4 U
Fluorene	0.37 U	0.4 U
Indeno(1,2,3-cd)pyrene	0.058 J	0.4 U
Naphthalene	0.37 U	0.4 U
Phenanthrene	0.1 J	0.4 U
Phenol	0.37 U	0.4 U

MW18-02	5/17/2004 0-2 ft BGS	5/17/2004 3-5 ft BGS
SVOCs		
2,4-Dimethylphenol	1.9 U	0.38 U
2-Methylnaphthalene	1.9 U	0.38 U
4-Methylphenol	1.9 U	0.38 U
Acenaphthene	1.9 U	0.38 U
Acenaphthylene	1.9 U	0.38 U
Anthracene	1.9 U	0.38 U
Benzo(a)anthracene	1.9 U	0.38 U
Benzo(a)pyrene	1.9 U	0.38 U
Benzo(b)fluoranthene	1.9 U	0.38 U
Benzo(k)fluoranthene	1.9 U	0.38 U
Carbazole	1.9 U	0.38 U
Dibenz(a,h)anthracene	1.9 U	0.38 U
Dibenzofuran	1.9 U	0.38 U
Di-n-butylphthalate (DBP)	1.9 U	0.38 U
Fluoranthene	1.9 U	0.38 U
Fluorene	1.9 U	0.38 U
Indeno(1,2,3-cd)pyrene	1.9 U	0.38 U
Naphthalene	1.9 U	0.38 U
Phenanthrene	1.9 U	0.38 U
Phenol	1.9 U	0.38 U

SB18-74	5/19/2004 0-2 ft BGS
SVOCs	
2,4-Dimethylphenol	0.42 U
2-Methylnaphthalene	0.018 J
4-Methylphenol	0.42 U
Acenaphthene	0.42 U
Acenaphthylene	0.42 U
Anthracene	0.42 U
Benzo(a)anthracene	0.42 U
Benzo(a)pyrene	0.42 U
Benzo(b)fluoranthene	0.42 U
Benzo(k)fluoranthene	0.42 U
Carbazole	0.42 U
Dibenz(a,h)anthracene	0.42 U
Dibenzofuran	0.42 U
Di-n-butylphthalate (DBP)	0.42 U
Fluoranthene	0.42 U
Fluorene	0.42 U
Indeno(1,2,3-cd)pyrene	0.42 U
Naphthalene	0.42 U
Phenanthrene	0.022 J
Phenol	0.42 U

MW18-01	5/17/2004 0-2 ft BGS	5/17/2004 3-5 ft BGS
SVOCs		
2,4-Dimethylphenol	8 U	0.37 U
2-Methylnaphthalene	8 U	0.37 U
4-Methylphenol	8 U	0.37 U
Acenaphthene	8 U	0.37 U
Acenaphthylene	8 U	0.37 U
Anthracene	8 U	0.37 U
Benzo(a)anthracene	8 U	0.37 U
Benzo(a)pyrene	8 U	0.37 U
Benzo(b)fluoranthene	8 U	0.37 U
Benzo(k)fluoranthene	8 U	0.37 U
Carbazole	8 U	0.37 U
Dibenz(a,h)anthracene	8 U	0.37 U
Dibenzofuran	8 U	0.37 U
Di-n-butylphthalate (DBP)	8 U	0.37 U
Fluoranthene	8 U	0.37 U
Fluorene	8 U	0.37 U
Indeno(1,2,3-cd)pyrene	8 U	0.37 U
Naphthalene	8 U	0.37 U
Phenanthrene	8 U	0.37 U
Phenol	8 U	0.37 U

SB18-219 EXCAVATED	8/16/2005 0-2 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.26 U
Acenaphthene	0.26 U
Anthracene	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.036 J
Naphthalene	0.015 J
Phenanthrene	0.06 J

SB-18-20	12/1/1996 0.5-2 ft BGS
SVOCs	
2-Methylnaphthalene	54 (I)
Acenaphthene	5.6
Acenaphthylene	6.3
Anthracene	3.5 U
Benzo(a)anthracene	3.5
Benzo(a)pyrene	3.5 U
Benzo(b)fluoranthene	3.5 U
Benzo(k)fluoranthene	3.5 U
Dibenz(a,h)anthracene	3.5 U
Fluoranthene	3.5 U
Fluorene	6 (I)
Indeno(1,2,3-cd)pyrene	3.5 U
Naphthalene	62 (I)
Phenanthrene	6.7 (I)

SB-18-25	12/1/1996 2-4 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.33 U
Acenaphthylene	0.33 U
Anthracene	0.33 U
Benzo(a)anthracene	0.33 U
Benzo(a)pyrene	0.33 U
Benzo(b)fluoranthene	0.33 U
Benzo(k)fluoranthene	0.33 U
Dibenz(a,h)anthracene	0.33 U
Fluoranthene	0.33 U
Fluorene	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U
Naphthalene	0.33 U
Phenanthrene	0.33 U

MW19-18	11/11/2003 0-2 ft BGS	11/11/2003 7.5-9.5 ft BGS
SVOCs		
2,4-Dimethylphenol	0.37 U	0.38 U
2-Methylnaphthalene	0.37 U	0.38 U
4-Methylphenol	0.37 U	0.38 U
Acenaphthene	0.37 U	0.38 U
Acenaphthylene	0.37 U	0.38 U
Anthracene	0.37 U	0.38 U
Benzo(a)anthracene	0.02 J	0.38 U
Benzo(a)pyrene	0.024 J	0.38 U
Benzo(b)fluoranthene	0.034 J	0.38 U
Benzo(k)fluoranthene	0.37 U	0.38 U
Carbazole	0.37 U	0.38 U
Dibenz(a,h)anthracene	0.37 U	0.38 U
Dibenzofuran	0.37 U	0.38 U
Di-n-butylphthalate (DBP)	0.026 J	0.38 U
Fluoranthene	0.05 J	0.38 U
Fluorene	0.37 U	0.38 U
Indeno(1,2,3-cd)pyrene	0.37 U	0.38 U
Naphthalene	0.37 U	0.38 U
Phenanthrene	0.027 J	0.38 U
Phenol	0.37 U	0.38 U

SB18-66	5/19/2004 0-2 ft BGS	5/19/2004 8-10 ft BGS
SVOCs		
2,4-Dimethylphenol	0.36 U	7.9 U
2-Methylnaphthalene	0.12 J	12 (I)
4-Methylphenol	0.36 U	7.9 U
Acenaphthene	0.36 U	1.3 J
Acenaphthylene	0.36 U	7.9 U
Anthracene	0.086 J	1.3 J
Benzo(a)anthracene	0.35 J	0.79 J
Benzo(a)pyrene	0.35 J	0.54 J
Benzo(b)fluoranthene	0.47	0.74 J
Benzo(k)fluoranthene	0.19 J	7.9 U
Carbazole	0.03 J	0.48 J
Dibenz(a,h)anthracene	0.079 J	7.9 U
Dibenzofuran	0.037 J	0.96 J
Di-n-butylphthalate (DBP)	0.36 U	2.5 J
Fluoranthene	0.97	2.9 J
Fluorene	0.36 U	1.8 J
Indeno(1,2,3-cd)pyrene	0.22 J	7.9 U
Naphthalene	0.06 J	9.3 (I)
Phenanthrene	0.55	5.9 J(I)
Phenol	0.36 U	7.9 U

SB-18-21A	12/1/1996 0-0.5 ft BGS	12/1/1996 4-6 BGS	12/1/1996 6-8 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	5.3 (I)	0.33 U
Acenaphthene	0.33 U	0.71	0.33 U
Acenaphthylene	0.33 U	0.33 U	0.33 U
Anthracene	0.33 U	1.7 U	0.33 U
Benzo(a)anthracene	0.97	1.7 U	0.33 U
Benzo(a)pyrene	0.89	1.7 U	0.33 U
Benzo(b)fluoranthene	1.6	1.7 U	0.33 U
Benzo(k)fluoranthene	0.33 U	1.7 U	0.33 U
Dibenz(a,h)anthracene	0.33 U	1.7 U	0.33 U
Fluoranthene	2.3	1.7 U	0.33 U
Fluorene	0.33 U	1.6	0.33 U
Indeno(1,2,3-cd)pyrene	0.99	1.7 U	0.33 U
Naphthalene	0.33 U	0.96 (I)	0.33 U
Phenanthrene	1.1	1.7 U	0.33 U

SB18-214	8/11/2005 1-2 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.039 J
Acenaphthene	0.26 U
Anthracene	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.031 J
Naphthalene	0.26 U
Phenanthrene	0.061 J

SB-18-23	12/1/1996 0.5-2 ft BGS	12/1/1996 4-6 ft BGS	12/1/1996 6-8 ft BGS
SVOCs			
2-Methylnaphthalene	0.33 U	1.4	0.33 U
Acenaphthene	0.33 U	4.7	0.33 U
Acenaphthylene	0.33 U	0.33 U	0.33 U
Anthracene	0.33 U	6.8	0.33 U
Benzo(a)anthracene	0.54	8	0.33 U
Benzo(a)pyrene	0.33 U	3.3 U	0.33 U
Benzo(b)fluoranthene	0.33 U	8.3	0.42
Benzo(k)fluoranthene	0.33 U	3.3 U	0.33 U
Dibenz(a,h)anthracene	0.33 U	3.3 U	0.33 U
Fluoranthene	0.33 U	22 (I)	0.9
Fluorene	0.33 U	4.4	0.33 U
Indeno(1,2,3-cd)pyrene	0.33 U	3.3 U	0.4
Naphthalene	0.33 U	4.9 (I)	0.33 U
Phenanthrene	0.33 U	24 (I)	0.41

TP-C	6/13/2005 11-11 ft BGS
SVOCs	
2,4-Dimethylphenol	0.26 U
2-Methylnaphthalene	0.26 U
4-Methylphenol	0.26 U
Acenaphthene	0.26 U
Acenaphthylene	0.26 U
Anthracene	0.26 U
Benzo(a)anthracene	0.26 U
Benzo(a)pyrene	0.26 U
Benzo(b)fluoranthene	0.26 U
Benzo(k)fluoranthene	0.26 U
Carbazole	0.26 U
Dibenz(a,h)anthracene	0.26 U
Dibenzofuran	0.26 U
Di-n-butylphthalate (DBP)	0.26 U
Fluoranthene	0.26 U
Fluorene	0.26 U
Indeno(1,2,3-cd)pyrene	0.26 U
Naphthalene	0.26 U
Phenanthrene	0.26 U
Phenol	0.26 U

SB18-65	5/19/2004 0-2 ft BGS	5/19/2004 9-11 ft BGS
SVOCs		
2,4-Dimethylphenol	0.38 U	0.37 U
2-Methylnaphthalene	0.38 U	0.37 U
4-Methylphenol	0.38 U	0.37 U
Acenaphthene	0.38 U	0.37 U
Acenaphthylene	0.38 U	0.37 U
Anthracene	0.38 U	0.37 U
Benzo(a)anthracene	0.38 U	0.37 U
Benzo(a)pyrene	0.041 J	0.37 U
Benzo(b)fluoranthene	0.067 J	0.37 U
Benzo(k)fluoranthene	0.38 U	0.37 U
Carbazole	0.38 U	0.37 U
Dibenz(a,h)anthracene	0.38 U	0.37 U
Dibenzofuran	0.38 U	0.37 U
Di-n-butylphthalate (DBP)	0.38 U	0.37 U
Fluoranthene	0.38 U	0.37 U
Fluorene	0.38 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.053 J	0.37 U
Naphthalene	0.38 U	0.37 U
Phenanthrene	0.018 J	0.37 U
Phenol	0.38 U	0.37 U

SB-18-24	12/1/1996 0.67-2.2 ft BGS
SVOCs	
2-Methylnaphthalene	0.33 U
Acenaphthene	0.93
Acenaphthylene	0.33 U
Anthracene	3
Benzo(a)anthracene	7.8
Benzo(a)pyrene	6.6
Benzo(b)fluoranthene	6.4
Benzo(k)fluoranthene	7.4
Dibenz(a,h)anthracene	0.75
Fluoranthene	15 (I)
Fluorene	1.1
Indeno(1,2,3-cd)pyrene	4.9
Naphthalene	0.33 U
Phenanthrene	9.1 (I)

MW18-07	11/11/2003 0-2 ft BGS	11/11/2003 8-10 ft BGS
SVOCs		
2,4-Dimethylphenol	0.37 U	0.37 U
2-Methylnaphthalene	0.37 U	0.37 U
4-Methylphenol	0.37 U	0.37 U
Acenaphthene	0.37 U	0.37 U
Acenaphthylene	0.37 U	0.37 U
Anthracene	0.37 U	0.37 U
Benzo(a)anthracene	0.037 J	0.37 U
Benzo(a)pyrene	0.044 J	0.37 U
Benzo(b)fluoranthene	0.043 J	0.37 U
Benzo(k)fluoranthene	0.033 J	0.37 U
Carbazole	0.37 U	0.37 U
Dibenz(a,h)anthracene	0.37 U	0.37 U
Dibenzofuran	0.37 U	0.37 U
Di-n-butylphthalate (DBP)	0.37 U	0.37 U
Fluoranthene	0.08 J	0.37 U
Fluorene	0.37 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.025 J	0.37 U
Naphthalene	0.37 U	0.37 U
Phenanthrene	0.037 J	0.37 U
Phenol	0.37 U	0.37 U

TRENCH 1	6/13/2005 10.2-10.2 ft BGS	6/14/2005 12.5-12.5 ft BGS
SVOCs		
2,4-Dimethylphenol	0.26 U	0.53 U
2-Methylnaphthalene	0.26 U	0.53 U
4-Methylphenol	0.26 U	0.53 U
Acenaphthene	0.26 U	0.53 U
Acenaphthylene	0.26 U	0.53 U
Anthracene	0.26 U	0.53 U
Benzo(a)anthracene	0.26 U	0.53 U
Benzo(a)pyrene	0.26 U	0.53 U
Benzo(b)fluoranthene	0.26 U	0.53 U
Benzo(k)fluoranthene	0.26 U	0.53 U
Carbazole	0.26 U	0.53 U
Dibenz(a,h)anthracene	0.26 U	0.53 U
Dibenzofuran	0.26 U	0.53 U
Di-n-butylphthalate (DBP)	0.26 U	0.53 U
Fluoranthene	0.26 U	0.53 U
Fluorene	0.26 U	0.53 U
Indeno(1,2,3-cd)pyrene	0.26 U	0.53 U
Naphthalene	0.26 U	0.054 J
Phenanthrene	0.26 U	0.53 U
Phenol	0.26 U	0.53 U

SB18-67	5/19/2004 0-2 ft BGS	5/19/2004 6-8 ft BGS
SVOCs		
2,4-Dimethylphenol	0.35 U	0.38 U
2-Methylnaphthalene	0.35 U	0.38 U
4-Methylphenol	0.35 U	0.38 U
Acenaphthene	0.35 U	0.38 U
Acenaphthylene	0.35 U	0.38 U
Anthracene	0.35 U	0.38 U
Benzo(a)anthracene	0.35 U	0.38 U
Benzo(a)pyrene	0.35 U	0.38 U
Benzo(b)fluoranthene	0.016 J	0.38 U
Benzo(k)fluoranthene	0.35 U	0.38 U
Carbazole	0.35 U	0.38 U
Dibenz(a,h)anthracene	0.35 U	0.38 U
Dibenzofuran	0.35 U	0.38 U
Di-n-butylphthalate (DBP)	0.35 U	0.38 U
Fluoranthene	0.35 U	0.044 J
Fluorene	0.35 U	0.38 U
Indeno(1,2,3-cd)pyrene	0.35 U	0.38 U
Naphthalene	0.35 U	0.38 U
Phenanthrene	0.35 U	0.081 J
Phenol	0.35 U	0.38 U

SB19-12	11/21/2003 3-5 ft BGS	11/21/2003 7-9 ft BGS
SVOCs		
2,4-Dimethylphenol	3.7 U	7.3 U
2-Methylnaphthalene	0.95 J	2.2 J
4-Methylphenol	3.7 U	7.3 U
Acenaphthene	3.7 U	7.3 U
Acenaphthylene	3.7 U	7.3 U
Anthracene	3.7 U	7.3 U
Benzo(a)anthracene	3.7 U	7.3 U
Benzo(a)pyrene	3.7 U	7.3 U
Benzo(b)fluoranthene	3.7 U	7.3 U
Benzo(k)fluoranthene	3.7 U	7.3 U
Carbazole	3.7 U	7.3 U
Dibenz(a,h)anthracene	3.7 U	7.3 U
Dibenzofuran	3.7 U	7.3 U
Di-n-butylphthalate (DBP)	2.3 J	4 J
Fluoranthene	0.88 J	2 J
Fluorene	1.1 J	2.1 J
Indeno(1,2,3-cd)pyrene	3.7 U	7.3 U
Naphthalene	1 J(I)	3.6 J(I)
Phenanthrene	0.94 J	2.3 J(I)
Phenol	3.7 U	7.3 U

SOIL DATA SUMMARY - SVOCs
PAOC 18 - WEST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.2B

17303-T05(008)GN-WI044 JUL 06/2011

DRAFT FOR REVIEW

N

0 10 20ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- DNAPL DELINEATION
- BURIED REFUSE DELINEATION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

SOIL CRITERIA (NON-RESIDENTIAL)

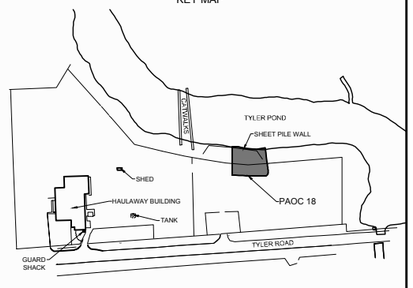
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION	TP-A60	6/14/2005	DATE
		12-12 ft BGS	DEPTH
PARAMETER	Inorganics		
	Antimony	0.052 J	RESULT
	Arsenic	6.0 J(E,I)	
	Barium	41.2	
	Cadmium	0.26	
	Chromium	16.1 (I)	
	Cobalt	7.3 (E,I)	
	Copper	17.1	
	Lead	14.6	
	Manganese	247 (E,I)	EXCEEDANCE
	Mercury	0.030 J	
	Nickel	20.2	
	Selenium	0.16 UJ	
	Silver	0.052 J	
	Thallium	0.22 J	
	Zinc	38.8	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - INORGANICS
PAOC 18 - EAST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CRA CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	OCTOBER 2011	
Scale: AS SHOWN	Project N°: 17303-T05	Report N°: 008	Drawing N° : FIGURE 3.3A

17303-T05(008)GN-WI013 OCT 12/2011

TYLER POND
SHEET PILE WALL
ABANDONED OUTFALL #12
OUTFALL #13
PERMANENT STM M.H.
STM M.H.
PAOC 18

SB18-137 SB18-72 SB-18-27 GS-5 SB-18-36 SB18-71 SB-18-38 PW3-99 SB-18-40 SB-18-43 SB-18-48
SB18-61 SB18-61A SB18-138 SB18-93 SB18-94 SB18-92 SB18-84 SB18-118 SB18-139 SB18-117 PZ18-96 SB18-106 PZ18-73 SB18-26 SB18-95 SB18-115 SB18-28 SB18-82 SB18-200 MW18-06 U-1 IW-41 TP-A39 IW-42 IW-43 IW-44 IW-45 MW-45 SB18-144 SB-18-33 SB18-201 SB18-140 MW19-19 SB-18-45 SB-18-37 PZ18-195 GS-8 SB-18-41 SB19-16 SB-18-41A B-11 SB18-76 BH8-99 TP-A60 SB18-205 SB19-14 SB18-204 SB-18-56 SB-18-57 SB18-128 SB-18-29 SB19-13 IW-46 IW-47 IW-48 IW-49 IW-50 TW-9 TP18-06 BH9-99 SB18-121 SB18-70 SB18-203 MW-12 SB-18-31 SB-18-35 SB-18-39 SB18-68 IW-51 IW-52 IW-53 IW-54 IW-55 SB18-77 SB18-69

SB18-72	5/24/2004 0-2 ft BGS	5/24/2004 2-4 ft BGS
Inorganics		
Aluminum	7480 (E)	9410 (E)
Antimony	0.59 UJ	0.59 UJ
Arsenic	3.2	4.7
Barium	53.9	71.3
Cadmium	0.41	0.23
Chromium	15.5 J(I)	16.0 J(I)
Cobalt	7.2 (E,I)	9.9 (E,I)
Copper	16.9	22.1
Cyanide (total)	0.23 U	0.24 U
Iron	14700 (E)	18000 (E)
Lead	9.3 J	8.9 J
Magnesium	12400	17600
Manganese	311 J	420 J
Mercury	0.026 J	0.019 J
Nickel	18.4	23.2
Selenium	0.16 J	0.24 U
Silver	0.59 U	0.59 U
Thallium	0.17	0.32
Zinc	48.3 J	133 J

SB-18-36	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-5 ft BGS
Inorganics				
Lead	8	5	5	4

SB-18-37	12/9/1996 0-0.5 ft BGS	12/9/1996 0.5-2 ft BGS	12/9/1996 2-4 ft BGS	12/9/1996 4-6 ft BGS	12/9/1996 6-8 ft BGS	12/9/1996 8-10 ft BGS	12/9/1996 10-12 ft BGS
Inorganics							
Lead	4400 (D,E)	200	47	13	3	7	6

SB-18-45	12/16/1996 0-0.5 ft BGS	12/16/1996 0.5-2 ft BGS	12/16/1996 2-4 ft BGS	12/16/1996 4-6 ft BGS	12/16/1996 6-8 ft BGS	12/16/1996 8-10 ft BGS	12/16/1996 10-11 ft BGS
Inorganics							
Lead	1700 (D,E)	340	4	8	10	4	8

SB-18-27	12/17/1996 0-0.5 ft BGS	12/17/1996 0.5-2 ft BGS	12/17/1996 2-4 ft BGS	12/17/1996 4-6 ft BGS
Inorganics				
Lead	190	190	630	29

PZ18-73	5/24/2004 0-2 ft BGS	5/24/2004 5-7 ft BGS
Inorganics		
Aluminum	4180	1300
Antimony	3.3 J	0.58 UJ
Arsenic	2.2	4.9
Barium	35.5	7.9
Cadmium	0.64	0.12
Chromium	18.6 J(I)	3.6 J(I)
Cobalt	2.3	2.7
Copper	5.1	6.9
Cyanide (total)	0.23 U	0.23 U
Iron	5260	10400
Lead	24.5 J	1.6 J
Magnesium	674	3620
Manganese	88.2 J	210 J
Mercury	0.030 J	0.0069 J
Nickel	4.4	5.6
Selenium	0.25	0.13 J
Silver	0.58 U	0.58 U
Thallium	0.058 J	0.038 J
Zinc	47.9 J	18.4 J

SB-18-26	12/11/1996 0-0.5 ft BGS	12/11/1996 0.5-2 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-6 ft BGS	12/11/1996 6-8 ft BGS	12/11/1996 8-10 ft BGS	12/11/1996 10-12 ft BGS
Inorganics							
Lead	560	12	6	6	8	9	8

SB-18-28	12/11/1996 0-0.5 ft BGS	12/11/1996 0.5-2 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-6 ft BGS	12/11/1996 6-8 ft BGS	12/11/1996 8-10 ft BGS	12/11/1996 10-12 ft BGS	12/11/1996 12-13 ft BGS
Inorganics								
Lead	2900 (D,E)	800 (E)	4	45	6	5	4	37

SB-18-33	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS	12/10/1996 6-8 ft BGS	12/10/1996 8-10 ft BGS	12/10/1996 10-11.5 ft BGS
Inorganics							
Lead	330	9100 (D,E,I)	5	3	7	5	3

TP-A39	6/14/2005 11-11 ft BGS
Inorganics	
Antimony	0.055 J
Arsenic	0.76 J
Barium	4.3
Cadmium	0.086
Chromium	16.1 (I)
Cobalt	1.7
Copper	4.5
Lead	6.5
Manganese	93.5
Mercury	0.022 J
Nickel	3.1
Selenium	0.10 J
Silver	0.080 UJ
Thallium	0.021 J
Zinc	16.4

SB-18-29	12/18/1996 0.17-0.67 ft BGS	12/18/1996 0.67-2.2 ft BGS	12/18/1996 2.2-4.2 ft BGS	12/18/1996 4.2-6.2 ft BGS	12/18/1996 6.2-8.2 ft BGS	12/18/1996 8.2-11 ft BGS
Inorganics						
Lead	8	200	13	8	24	62

SB19-13	11/21/2003 0-2 ft BGS	11/21/2003 2-4 ft BGS	11/21/2003 8-10 ft BGS
Inorganics			
Aluminum	3450	3400	13100 (E)
Antimony	4.0	18.2 (E)	449 (E,I)
Arsenic	2.6	2.6	4.0
Barium	203	225	454
Cadmium	8.3 (E,I)	1.4	68.3 (E,I)
Chromium	28.9 (I)	28.2 (I)	6190 (E,G,I)
Cobalt	5.0	3.6	67.8 (E,I)
Copper	12.5	12.6	373 (I)
Cyanide (total)	0.18 J	0.093 J	4.5 (E,I)
Iron	5440	5030	10700
Lead	50.3	32.6	2540 (D,E)
Magnesium	6340	8630	719
Manganese	89.0	89.2	120
Mercury	0.029 J	0.024 J	2.6 (E,I)
Nickel	6.7	5.6	39.1
Selenium	2.5 (I)	0.32	0.25 J
Silver	0.55 U	0.55 U	69.4 (E,I)
Thallium	0.038 J	0.049 J	6.4 U
Zinc	181	165	10900 (E,I)

SB18-68	5/19/2004 0-2 ft BGS	5/19/2004 9-11 ft BGS
Inorganics		
Aluminum	2220	2670
Antimony	0.55 UJ	0.59 UJ
Arsenic	1.2	2.9
Barium	7.2 J	11.3 J
Cadmium	0.031 J	0.31 J
Chromium	6.8 J(I)	6.1 J(I)
Cobalt	1.5	2.9
Copper	3.4 J	7.2 J
Cyanide (total)	0.22 U	0.24 U
Iron	4180	6480
Lead	2.1 J	3.4 J
Magnesium	654	4690
Manganese	47.3 J	126 J
Mercury	0.014 J	0.012 J
Nickel	4.0	7.2
Selenium	0.096 J	0.28 J
Silver	0.55 U	0.59 U
Thallium	0.11 U	0.11 J
Zinc	10.2	21.0

SB18-69	5/19/2004 0-2 ft BGS	5/19/2004 4-6 ft BGS
Inorganics		
Aluminum	3750	4400
Antimony	1.5 J	0.75 J
Arsenic	2.3	2.9
Barium	32.7 J	39.2 J
Cadmium	0.10 J	1.1 J
Chromium	5.6 J(I)	10.6 J(I)
Cobalt	2.0	4.5
Copper	2.9 J	8.4 J
Cyanide (total)	0.21 U	0.23 U
Iron	4810	8270
Lead	3.7 J	11.2 J
Magnesium	764	1470
Manganese	73.9 J	344 J
Mercury	0.018 J	0.015 J
Nickel	4.7	9.9
Selenium	0.21 UJ	0.31 J
Silver	0.53 U	0.57 U
Thallium	0.064 J	0.072 J
Zinc	13.2	39.4

SB-18-31	12/14/1996 0.17-0.67 ft BGS	12/14/1996 0.67-2.2 ft BGS	12/14/1996 2.2-4.2 ft BGS	12/14/1996 4.2-6.2 ft BGS	12/14/1996 6.2-8.2 ft BGS	12/14/1996 8.2-10.2 ft BGS	12/14/1996 10.2-12 ft BGS
Inorganics							
Lead	4	15	4	2	5	4	5

SB-18-35	12/13/1996 0.17-0.67 ft BGS	12/13/1996 0.67-2.2 ft BGS	12/13/1996 2.2-4.2 ft BGS	12/13/1996 4.2-6.2 ft BGS	12/13/1996 6.2-8.2 ft BGS	12/13/1996 8.2-10.2 ft BGS	12/13/1996 10.2-12 ft BGS
Inorganics							
Lead	15	70	8100 (D,E,I)	3100 (D,E)	18	360	6

SB-18-39	12/14/1996 0.17-0.67 ft BGS	12/14/1996 0.67-2.2 ft BGS	12/14/1996 2.2-4.2 ft BGS	12/14/1996 4.2-6.2 ft BGS	12/14/1996 6.2-8.2 ft BGS	12/14/1996 8.2-10.2 ft BGS	12/14/1996 10.2-12 ft BGS
Inorganics							
Lead	1	4	4	3	7	2	8

SB18-71	5/24/2004 0-2 ft BGS
Inorganics	
Aluminum	10900 (E)
Antimony	0.63 UJ
Arsenic	3.3
Barium	58.2
Cadmium	0.33
Chromium	18.4 J(I)
Cobalt	10.7 (E,I)
Copper	24.4
Cyanide (total)	0.25 U
Iron	18700 (E)
Lead	10.3 J
Magnesium	19200
Manganese	409 J
Mercury	0.027 J
Nickel	29.0
Selenium	0.25 U
Silver	0.63 U
Thallium	0.36
Zinc	63.3 J

SB-18-41	12/9/1996 0-0.5 ft BGS	12/9/1996 0.5-2 ft BGS	12/9/1996 2-4 ft BGS	12/9/1996 4-6 ft BGS	12/9/1996 6-8 ft BGS	12/9/1996 8-10 ft BGS	12/9/1996 10-12 ft BGS	12/9/1996 12-13.5 ft BGS
Inorganics								
Lead	170	6	11	10	5	6	3	6

SB-18-38	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-5 ft BGS
Inorganics				
Lead	42	8	4	2

SB19-16	11/14/2003 0-2 ft BGS	11/14/2003 4-6 ft BGS
Inorganics		
Aluminum	3010	2450
Antimony	0.54 U	0.31 J
Arsenic	1.5	5.8
Barium	39.1	9.9
Cadmium	1.6	0.073
Chromium	8.2 (I)	5.4 (I)
Cobalt	1.8	2.6
Copper	2.3	5.8
Cyanide (total)	1.2 (I)	0.33
Iron	4630	7240
Lead	18.5	2.8
Magnesium	471	2720
Manganese	199	104
Mercury	0.11 U	0.12 U
Nickel	3.0	6.6
Selenium	0.83 (I)	0.094 J
Silver	0.54 U	0.60 U
Thallium	0.54 U	0.60 U
Zinc	28.5	18.4

SB-18-40	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-6 ft BGS
Inorganics				
Lead	97	13	5	3

SB-18-41A	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-6 ft BGS	12/13/1996 6-8 ft BGS	12/13/1996 8-10 ft BGS	12/13/1996 10-11 ft BGS
Inorganics							
Lead	37	23	3	7	4	5	3

SB-18-43	12/9/1996 0-0.5 ft BGS	12/9/1996 0.5-2 ft BGS	12/9/1996 2-4 ft BGS	12/9/1996 4-6 ft BGS	12/9/1996 6-8 ft BGS	12/9/1996 8-10 ft BGS	12/9/1996 10-12 ft BGS	12/9/1996 12-13 ft BGS
Inorganics								
Lead	2500 (D,E)	700	11	35	6	52	3	14

SB-18-48	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-6 ft BGS	12/13/1996 6-8 ft BGS	12/13/1996 8-10 ft BGS	12/13/1996 10-11 ft BGS
Inorganics							
Lead	100	7	3	4	3	4	3

SB18-76	5/24/2004 0-2 ft BGS	5/24/2004 10-12 ft BGS
Inorganics		
Aluminum	3680	1570
Antimony	0.54 UJ	0.55 UJ
Arsenic	2.2	2.0
Barium	15.7	6.8
Cadmium	0.26	0.092
Chromium	5.8 J(I)	4.7 J(I)
Cobalt	1.9	1.7
Copper	3.2 U	4.3
Cyanide (total)	0.22 U	0.22 U
Iron	5330	5060
Lead	4.0 J	4.0 J
Magnesium	808	3460
Manganese	72.4 J	125 J
Mercury	0.013 J	0.018 J
Nickel	4.4	3.4
Selenium	0.11 J	0.22 U
Silver	0.54 U	0.55 U
Thallium	0.041 J	0.038 J
Zinc	21.8 J	23.8 J

SB-18-56	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	390	49	4	4	7.4	5.6	3.1

SB-18-57	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	5	3	4	9	9	9	4

SB18-77	5/24/2004 0-2 ft BGS	5/24/2004 9-10 ft BGS
Inorganics		
Aluminum	3380	1570
Antimony	0.54 UJ	0.54 UJ
Arsenic	2.1	3.5
Barium	16.3	7.6
Cadmium	0.080	0.13
Chromium	5.8 J(I)	4.6 J(I)
Cobalt	2.3	2.0
Copper	4.1	8.0
Cyanide (total)	0.22 U	0.22 U
Iron	5260	7020
Lead	7.0 J	2.3 J
Magnesium	839	4420
Manganese	79.6 J	197 J
Mercury	0.023 J	0.0095 J
Nickel	4.8	6.2
Selenium	0.22 U	0.13 J
Silver	0.54 U	0.54 U
Thallium	0.029 J	0.049 J
Zinc	15.2 J	18.0 J

SB18-203	6/2/2005 0-3 ft BGS	6/2/2005 3-6 ft BGS	6/2/2005 6-9 ft BGS	6/2/2005 9-12 ft BGS
Inorganics				
Antimony	0.093 J	0.044 J	R	0.022 J
Arsenic	1.6	1.6	3.0	4.2
Barium	12.7	15.0	21.2	12.1
Cadmium	0.029 J	0.046 J	0.080 U	0.040 J
Chromium	5.8 (I)	6.4 (I)	9.9 (I)	5.4 (I)
Cobalt	2.3	2.3	4.3	2.7
Copper	2.9	3.2	9.4	6.3
Lead	3.0	3.0	5.8	2.7
Manganese	71.0	84.3	97.5	273
Mercury	0.0084 J	0.013 J	0.012 J	0.040 U
Nickel	4.9	5.0	9.2	6.9
Selenium	0.23	0.15 J	0.15 J	0.097 J
Silver	0.015 J	0.027 J	0.037 J	0.030 J
Thallium	0.039 J	0.038 J	0.080	0.070 J
Zinc	11.0	13.2	21.4	15.4

SB18-70	5/19/2004 0-2 ft BGS	5/19/2004 5-6 ft BGS	5/19/2004 10-12 ft BGS
Inorganics			
Aluminum	3220	3810	3720
Antimony	1.7 J	1490 J(E,I)	0.55 UJ
Arsenic	1.6	23.9 (E,I)	3.1
Barium	479 J	6750 J(E,I)	13.4 J
Cadmium	20.6 J(E,I)	292 J(E,I)	0.079 J
Chromium	24.0 J(I)	159 J(E,I)	7.3 J(I)
Cobalt	2.5	19.4 (E,I)	2.8
Copper	10.6 J	266 J(I)	9.1 J
Cyanide (total)	0.22 U	3.2 (I)	0.22 U
Iron	4070	34100 (E)	8220
Lead	156 J	61300 J(D,E,G,I)	4.6 J
Magnesium	52100 (E)	17900	1770
Manganese	127 J	800 J(E,I)	170 J
Mercury	0.0053 J	0.18 (I)	0.0087 J
Nickel	5.8	27.4	8.6
Selenium	7.1 J(E,I)	101 J(E,I)	0.16 J
Silver	0.22 J	12.0 (I)	0.55 U
Thallium	0.070 J	0.16 U	0.075 J
Zinc	219	2470 (I)	32.4

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SB18-219	8/16/2005 0-2 ft BGS
Inorganics	
Antimony	0.026 J
Barium	55.5
Cadmium	0.45
Chromium	10.8 (I)
Cobalt	7.3 (E,I)
Lead	37.2
Manganese	313
Mercury	0.023 J
Selenium	0.21
Silver	0.063 J
Zinc	39.9

SB18-209	8/11/2005 2-3 ft BGS
Inorganics	
Antimony	0.013 J
Barium	69.7
Cadmium	1.0 J
Chromium	13.1 (I)
Cobalt	7.8 (E,I)
Lead	45.2 J
Manganese	354
Mercury	0.040 U
Selenium	3.1 J(I)
Silver	0.097
Zinc	49.5

GS-6	5/24/2005 2.5-3 ft BGS
Inorganics	
Antimony	8.0 J(E)
Arsenic	12.3 J(E,I)
Barium	10100 (E,I)
Cadmium	613 (E,I)
Chromium	536 (E,G,I)
Cobalt	80.6 J(E,I)
Copper	122
Lead	10800 (D,E,I)
Manganese	471 (E,I)
Mercury	0.23 J(I)
Nickel	32.7 J
Selenium	14.8 J(E,I)
Silver	0.39 J
Thallium	0.048 J
Zinc	1570 (I)

SB18-211	8/11/2005 1.5-2.5 ft BGS
Inorganics	
Antimony	R
Barium	63.7
Cadmium	0.61 J
Chromium	12.8 (I)
Cobalt	8.3 (E,I)
Lead	35.1 J
Manganese	351
Mercury	0.040 U
Selenium	0.39 UJ
Silver	0.13
Zinc	48.6

SB18-210	8/11/2005 1.5-2.5 ft BGS
Inorganics	
Antimony	R
Barium	51.5
Cadmium	0.46 J
Chromium	12.1 (I)
Cobalt	5.9
Lead	23.6 J
Manganese	292
Mercury	0.040 U
Selenium	0.32 UJ
Silver	0.10
Zinc	41.6

SB18-218	8/16/2005 0-2 ft BGS
Inorganics	
Antimony	0.017 J/0.021 J
Barium	57.4/47.9
Cadmium	0.42/0.35
Chromium	11.9 (I)/10.1 (I)
Cobalt	8.4 (E,I)/7.1 (E,I)
Lead	17.8/24.1
Manganese	348/351
Mercury	0.027 J/0.024 J
Selenium	0.22/0.16
Silver	0.062 J/0.060 J
Zinc	35.4/36.2

SB18-75	5/19/2004 0-2 ft BGS	5/19/2004 4-5 ft BGS
Inorganics		
Aluminum	5260	10000 (E)
Antimony	0.56 UJ	0.60 UJ
Arsenic	3.6	4.3
Barium	32.5 J	65.3 J
Cadmium	0.14 J	0.17 J
Chromium	10.1 J(I)	17.3 J(I)
Cobalt	5.2	9.3 (E,I)
Copper	11.6 J	21.2 J
Cyanide (total)	0.23 U	0.24 U
Iron	10600	19300 (E)
Lead	6.8 J	9.3 J
Magnesium	9500	17600
Manganese	266 J	430 J
Mercury	0.015 J	0.023 J
Nickel	13.4	24.2
Selenium	0.13 J	0.19 J
Silver	0.56 U	0.60 U
Thallium	0.15	0.27
Zinc	31.2	54.0

SB18-74	5/19/2004 0-2 ft BGS
Inorganics	
Aluminum	11900 (E)
Antimony	0.64 UJ
Arsenic	4.8
Barium	72.1 J
Cadmium	0.22 J
Chromium	20.7 J(I)
Cobalt	10.3 (E,I)
Copper	23.9 J
Cyanide (total)	0.25 U
Iron	22100 (E)
Lead	9.5 J
Magnesium	16700
Manganese	417 J
Mercury	0.024 J
Nickel	27.6
Selenium	0.13 J
Silver	0.64 U
Thallium	0.29
Zinc	59.1

MW18-01	5/17/2004 0-2 ft BGS	5/17/2004 3-5 ft BGS
Inorganics		
Aluminum	7140 (E)	4620
Antimony	0.61 UJ	0.57 UJ
Arsenic	5.3	2.8
Barium	164	18.1
Cadmium	3.0	0.22
Chromium	53.1 J(E,I)	8.6 J(I)
Cobalt	5.0	4.5
Copper	16.7	10.8
Cyanide (total)	2.6 (I)	0.23 U
Iron	11600	10100
Lead	52.9 J	5.3 J
Magnesium	6370	7610
Manganese	301 J	294 J
Mercury	0.079 J	0.0067 J
Nickel	13.1	12.3
Selenium	1.3 (I)	0.23 U
Silver	0.87	0.57 U
Thallium	0.36 U	0.16 U
Zinc	145 J	32.1 J

SB18-214	8/11/2005 1-2 ft BGS
Inorganics	
Antimony	R
Barium	51.5
Cadmium	0.59 J
Chromium	11.3 (I)
Cobalt	6.6
Lead	39.2 J
Manganese	325
Mercury	0.040 U
Selenium	0.37 UJ
Silver	0.089
Zinc	47.1

SB18-22	12/17/1996 0-0.5 ft BGS	12/17/1996 0.5-2 ft BGS	12/17/1996 2-4 ft BGS	12/17/1996 4-6 ft BGS
Inorganics				
Lead	340	800 (E)	500	70

SB18-25	12/18/1996 0-0.5 ft BGS	12/18/1996 0.5-2 ft BGS	12/18/1996 2-4 ft BGS	12/18/1996 4-6 ft BGS	12/18/1996 6-8 ft BGS	12/18/1996 8-10.5 ft BGS
Inorganics						
Lead	26000 (D,E,I)	1600 (D,E)	27	17	5	5

SB18-20	12/14/1996 0-0.5 ft BGS	12/14/1996 0.5-2 ft BGS	12/14/1996 2-4 ft BGS
Inorganics			
Lead	220	2800 (D,E)	13

SB18-21A	12/13/1996 0-0.5 ft BGS	12/13/1996 0.5-2 ft BGS	12/13/1996 2-4 ft BGS	12/13/1996 4-6 ft BGS	12/13/1996 6-8 ft BGS	12/13/1996 8-10 ft BGS
Inorganics						
Lead	360	730 (E)	1400 (D,E)	570	11	12

SB18-21	12/11/1996 0-0.5 ft BGS	12/11/1996 0.5-2 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-6 ft BGS	12/11/1996 6-8 ft BGS	12/11/1996 8-10 ft BGS
Inorganics						
Lead	450	7300 (D,E)	2100 (D,E)	160	8	5

MW18-02	5/17/2004 0-2 ft BGS	5/17/2004 3-5 ft BGS
Inorganics		
Aluminum	5620	3070
Antimony	0.35 J	0.58 UJ
Arsenic	3.6	3.0
Barium	136	10.4
Cadmium	1.5	0.077
Chromium	49.0 J(E,I)	6.5 J(I)
Cobalt	4.0	2.7
Copper	15.2	9.9
Cyanide (total)	1.1 U	0.23 U
Iron	8150	7490
Lead	34.8 J	4.0 J
Magnesium	2190	783
Manganese	109 J	113 J
Mercury	0.061 J	0.0097 J
Nickel	9.9	9.3
Selenium	0.89 (I)	0.16 J
Silver	0.66	0.58 U
Thallium	0.23 U	0.12 U
Zinc	82.1 J	23.4 J

SB18-23	12/11/1996 0-0.5 ft BGS	12/11/1996 0.5-2 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-6 ft BGS	12/11/1996 6-8 ft BGS	12/11/1996 10-12 ft BGS
Inorganics						
Lead	530	610	320	360	490	120

MW19-17	11/11/2003 0-2 ft BGS	11/11/2003 8-10 ft BGS
Inorganics		
Aluminum	5300	3680
Antimony	0.57 UJ	0.57 UJ
Arsenic	3.0	1.3
Barium	37.9	16.6
Cadmium	0.18	0.16
Chromium	10 (I)	7.5 (I)
Cobalt	5.0	3.9
Copper	11.5	9.1
Cyanide (total)	0.23 U	0.23 U
Iron	10800	7420
Lead	8.3	4.2
Magnesium	9940	10800
Manganese	285	153
Mercury	0.027 J	0.11 U
Nickel	11.9	9.8
Selenium	0.23 U	0.23 U
Silver	0.57 U	0.57 U
Thallium	0.13	0.11
Zinc	34.1	27.8

TP-C	6/13/2005 11-11 ft BGS
Inorganics	
Antimony	0.071 J
Arsenic	9.1 J(E,I)
Barium	22.1
Cadmium	0.20
Chromium	8.3 (I)
Cobalt	4.1
Copper	10.3
Lead	11.9
Manganese	124 J
Mercury	0.0059 J
Nickel	10.7
Selenium	0.38
Silver	0.049 J
Thallium	0.16
Zinc	27.2

SB18-65	5/19/2004 0-2 ft BGS	5/19/2004 9-11 ft BGS
Inorganics		
Aluminum	3960	2440
Antimony	0.57 UJ	0.56 UJ
Arsenic	4.1	1.2
Barium	42.1 J	11.7 J
Cadmium	0.63 J	0.075 J
Chromium	7.8 J(I)	5.1 J(I)
Cobalt	4.2	4.3
Copper	9.7 J	7.7 J
Cyanide (total)	0.23 U	0.22 U
Iron	8570	4590
Lead	11.1 J	3.1 J
Magnesium	13100	10600
Manganese	233 J	131 J
Mercury	0.017 J	0.011 J
Nickel	10.3	8.1
Selenium	0.24 J	0.26 J
Silver	0.57 U	0.56 U
Thallium	0.19	0.090 J
Zinc	34.2	19.3

SB18-54	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	70	12	37	7	7	7	6

TRENCH 1	6/13/2005 10.2-10.2 ft BGS	6/14/2005 12.5-12.5 ft BGS
Inorganics		
Antimony	0.032 J	0.048 J
Arsenic	2.0 J	2.0 J
Barium	36.5	58.3
Cadmium	0.20	0.24
Chromium	12.6 (I)	20.9 (I)
Cobalt	6.3	9.1 (E,I)
Copper	15.8	20.8
Lead	12.2	13.7
Manganese	272 J	372
Mercury	0.0081 J	0.031 J
Nickel	18.1	27.2
Selenium	0.16 U	0.23 J
Silver	0.053 J	0.051 J
Thallium	0.21	0.20 J
Zinc	37.3	34.9

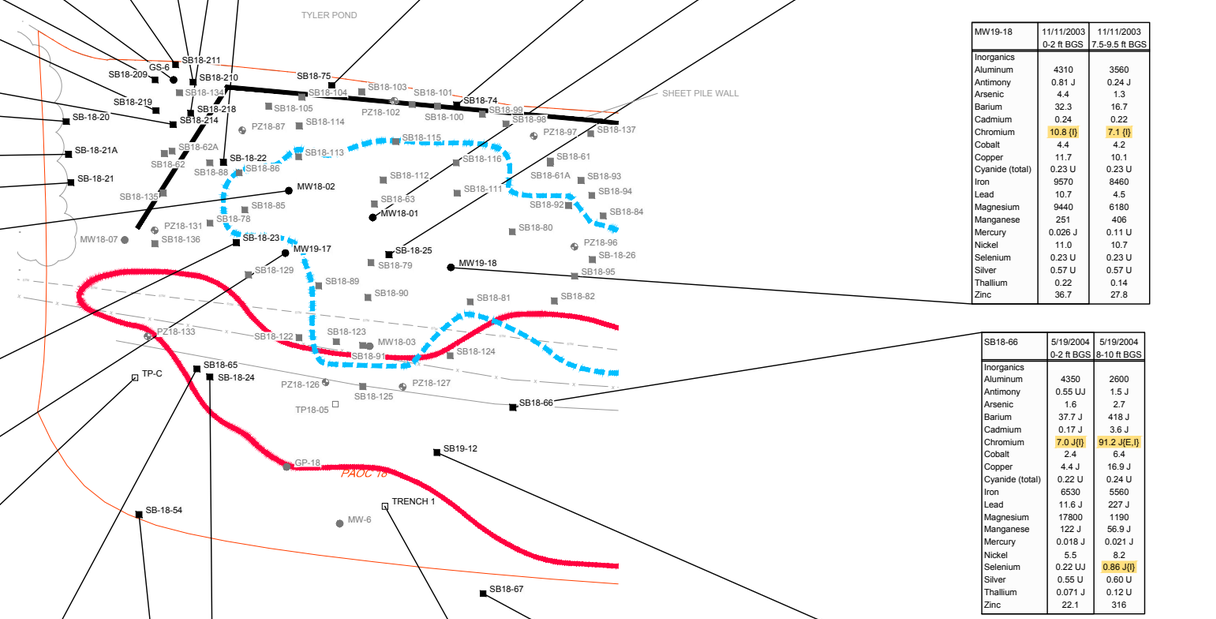
SB18-24	12/18/1996 0.17-0.67 ft BGS	12/18/1996 0.67-2.2 ft BGS	12/18/1996 2.2-4.2 ft BGS	12/18/1996 4.2-6.2 ft BGS	12/18/1996 6.2-8.2 ft BGS	12/18/1996 8.2-10.2 ft BGS	12/18/1996 10.2-11.5 ft BGS
Inorganics							
Lead	33	190	710 (E)	6	6	10	7

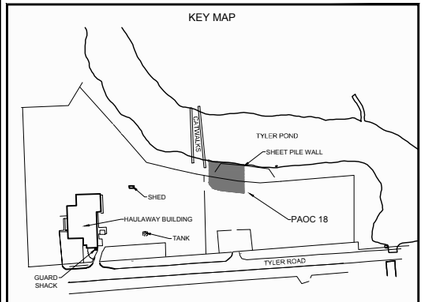
SB18-67	5/19/2004 0-2 ft BGS	5/19/2004 6-8 ft BGS
Inorganics		
Aluminum	2900	4090
Antimony	0.53 UJ	0.58 UJ
Arsenic	2.1	2.1
Barium	20.8 J	13.5 J
Cadmium	0.22 J	0.038 J
Chromium	4.8 J(I)	9.0 J(I)
Cobalt	1.9	2.3
Copper	3.1 J	5.7 J
Cyanide (total)	0.21 U	0.23 U
Iron	4310	6550
Lead	4.4 J	3.3 J
Magnesium	722	1840
Manganese	61.7 J	106 J
Mercury	0.035 J	0.018 J
Nickel	3.9	6.3
Selenium	0.16 J	0.14 J
Silver	0.53 U	0.58 U
Thallium	0.065 J	0.12 U
Zinc	14.2	17.5

MW19-18	11/11/2003 0-2 ft BGS	11/11/2003 7.5-9.5 ft BGS
Inorganics		
Aluminum	4310	3560
Antimony	0.81 J	0.24 J
Arsenic	4.4	1.3
Barium	32.3	16.7
Cadmium	0.24	0.22
Chromium	10.8 (I)	7.1 (I)
Cobalt	4.4	4.2
Copper	11.7	10.1
Cyanide (total)	0.23 U	0.23 U
Iron	9570	8460
Lead	10.7	4.5
Magnesium	9440	6180
Manganese	251	406
Mercury	0.026 J	0.11 U
Nickel	11.0	10.7
Selenium	0.23 U	0.23 U
Silver	0.57 U	0.57 U
Thallium	0.22	0.14
Zinc	36.7	27.8

SB18-66	5/19/2004 0-2 ft BGS	5/19/2004 8-10 ft BGS
Inorganics		
Aluminum	4350	2600
Antimony	0.55 UJ	1.5 J
Arsenic	1.6	2.7
Barium	37.7 J	418 J
Cadmium	0.17 J	3.6 J
Chromium	7.0 J(I)	91.2 J(E,I)
Cobalt	2.4	6.4
Copper	4.4 J	16.9 J
Cyanide (total)	0.22 U	0.24 U
Iron	6530	5560
Lead	11.6 J	227 J
Magnesium	17800	1190
Manganese	122 J	56.9 J
Mercury	0.018 J	0.021 J
Nickel	5.5	8.2
Selenium	0.22 UJ	0.86 J(I)
Silver	0.55 U	0.60 U
Thallium	0.071 J	0.12 U
Zinc	22.1	316

SB19-12	11/21/2003 3-5 ft BGS	11/21/2003 7-9 ft BGS
Inorganics		
Aluminum	3060	4300
Antimony	1.4	2.3
Arsenic	1.8	2.9
Barium	16.7	41.9
Cadmium	0.50	0.70
Chromium	35.8 (E,I)	214 (E,I)
Cobalt	3.6	7.0 J(E,I)
Copper	12.0	8.6 J
Cyanide (total)	0.095 J	0.22 U
Iron	5030	6640
Lead	24.1	32.3
Magnesium	809	4400
Manganese	44.9	112
Mercury	0.11 U	0.030 J
Nickel	6.6	8.1 J
Selenium	0.23 U	0.22 U
Silver	0.57 U	0.55 U
Thallium	0.052 J	0.15
Zinc	91.6	545 J(I)





LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- DNAPL DELINEATION
- BURIED REFUSE DELINEATION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

R - THE DATA IS QUALIFIED AS UNUSABLE (NOTE: ANALYTE MAY OR MAY NOT BE PRESENT)

SOIL CRITERIA (NON-RESIDENTIAL)

A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION	TP-C	6/13/2005	DATE
		11-11 ft BGS	DEPTH
PARAMETER	Inorganics		
	Antimony	0.071 J	
	Arsenic	9.1 J(E,I)	RESULT
	Barium	22.1	
	Cadmium	0.20	
	Chromium	8.3 (I)	
	Cobalt	4.1 (E,I)	
	Copper	10.3	
	Lead	11.9	
	Manganese	124 J(E)	EXCEEDANCE
	Mercury	0.0059 J	
	Nickel	10.7	
	Selenium	0.38	
	Silver	0.049 J	
	Thallium	0.16	
	Zinc	27.2	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

SOIL DATA SUMMARY - INORGANICS
PAOC 18 - WEST

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	OCTOBER 2011	
Scale: AS SHOWN	Project N°: 17303-T05	Report N°: 008	Drawing N°: FIGURE 3.3B

17303-T05(008)GN-WI043 OCT 12/2011

DRAFT FOR REVIEW

N

0 15 30ft

MW19-10	11/19/2003 7.4-9.4 ft BGS
VOCs	
1,1,2-Trichloroethane	0.37 U
1,1-Dichloroethene	0.37 U
1,2,4-Trichlorobenzene	1.8 U
1,2-Dibromo-3-chloropropane (DBCP)	1.8 U
1,2-Dichlorobenzene	0.73 U
1,2-Dichloroethane	0.37 U
1,4-Dichlorobenzene	0.73 U
Benzene	0.37 U
Chlorobenzene	0.37 U
cis-1,2-Dichloroethene	0.37 U
Ethylbenzene	3.5 (E,I)
Isopropyl benzene	1.3 J
Methylene chloride	1.8 U
Styrene	0.37 U
Toluene	1.3
Trichloroethene	0.37 U
Vinyl chloride	0.33 J(E,I)
Xylenes (total)	16 (E,I)

TP19-02	6/3/2003 -
VOCs	
1,1,2-Trichloroethane	0.055 U
1,1-Dichloroethene	0.055 U
1,2,4-Trichlorobenzene	0.27 U
1,2-Dibromo-3-chloropropane (DBCP)	0.27 U
1,2-Dichlorobenzene	0.11 U
1,2-Dichloroethane	0.055 U
1,4-Dichlorobenzene	0.11 U
Benzene	0.055 U
Chlorobenzene	0.055 U
cis-1,2-Dichloroethene	0.15
Ethylbenzene	0.055 U
Isopropyl benzene	0.27 U
Methylene chloride	0.27 U
Styrene	0.055 U
Toluene	0.11 U
Trichloroethene	1.8 (E)
Vinyl chloride	0.11 U
Xylenes (total)	0.16 U
PCBs	
Total PCBs	1.6

SB23-03	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
VOCs				
1,1,2-Trichloroethane	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
1,1-Dichloroethene	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
1,2,4-Trichlorobenzene	0.2 U	0.2 U	0.2 U	0.2 U/0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	0.2 U	0.2 U	0.2 U	0.2 U/0.2 U
1,2-Dichlorobenzene	0.08 U	0.08 U	0.08 U	0.08 U/0.08 U
1,2-Dichloroethane	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
1,4-Dichlorobenzene	0.08 U	0.08 U	0.08 U	0.08 U/0.08 U
Benzene	0.04 U	0.04 U	0.04 U	0.011 J/0.04 U
Chlorobenzene	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
cis-1,2-Dichloroethene	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
Ethylbenzene	0.04 U	0.04 U	0.04 U	0.04 U/0.0099 J
Isopropyl benzene	0.2 U	0.2 U	0.2 U	0.05 J/0.2 U
Methylene chloride	0.2 U	0.2 U	0.2 U	0.2 U/0.2 U
Styrene	0.04 U	0.04 U	0.04 U	0.04 U/0.04 U
Toluene	0.08 U	0.08 U	0.08 U	0.0091 J/0.08 U
Trichloroethene	0.013 J	0.04 U	0.04 U	0.036 J/0.019 J
Vinyl chloride	0.032 U	0.032 U	0.032 U	0.032 U/0.032 U
Xylenes (total)	0.12 U	0.12 U	0.12 U	0.054 J/0.12 U
PCBs				
Total PCBs	0.077 J	0.26 U	0.26 U	0.26 U/0.26 U

SB23-04	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
VOCs				
1,1,2-Trichloroethane	0.038 U	0.04 U	0.14 U	0.04 U
1,1-Dichloroethene	0.038 U	0.04 U	0.14 U	0.04 U
1,2,4-Trichlorobenzene	0.19 U	0.2 U	0.72 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	0.19 U	0.2 U	0.72 U	0.2 U
1,2-Dichlorobenzene	0.077 U	0.08 U	0.29 U	0.08 U
1,2-Dichloroethane	0.038 U	0.04 U	0.14 U	0.04 U
1,4-Dichlorobenzene	0.077 U	0.08 U	0.29 U	0.08 U
Benzene	0.038 U	0.04 U	0.047 J	0.014 J
Chlorobenzene	0.038 U	0.04 U	0.14 U	0.04 U
cis-1,2-Dichloroethene	0.21	0.19	4.7 (E)	1.5 (E)
Ethylbenzene	0.038 U	0.04 U	0.029 J	0.013 J
Isopropyl benzene	0.19 U	0.2 U	0.02 J	0.052 J
Methylene chloride	0.19 U	0.2 U	0.72 U	0.2 U
Styrene	0.038 U	0.04 U	0.14 U	0.04 U
Toluene	0.077 U	0.08 U	0.23 J	0.089
Trichloroethene	0.16 (E)	0.017 J	0.14 U	0.047
Vinyl chloride	0.031 U	0.032 U	0.23 (E)	0.15 (E)
Xylenes (total)	0.12 U	0.12 U	0.17 J	0.061 J
PCBs				
Total PCBs	0.88	0.26 U	0.26 U	0.094 J

TP19-06	6/4/2003 -
VOCs	
1,1,2-Trichloroethane	0.057 U
1,1-Dichloroethene	0.057 U
1,2,4-Trichlorobenzene	0.28 U
1,2-Dibromo-3-chloropropane (DBCP)	0.28 U
1,2-Dichlorobenzene	0.11 U
1,2-Dichloroethane	0.057 U
1,4-Dichlorobenzene	0.32
Benzene	0.057 U
Chlorobenzene	0.46
cis-1,2-Dichloroethene	0.057 U
Ethylbenzene	10 (E,I)
Isopropyl benzene	7.8 (I)
Methylene chloride	0.28 U
Styrene	0.057 U
Toluene	0.11 U
Trichloroethene	0.057 U
Vinyl chloride	0.11 U
Xylenes (total)	18.7 (E,I)
PCBs	
Total PCBs	0.47

SB24-01	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
VOCs				
1,1,2-Trichloroethane	0.04 U	0.04 U	0.04 U	10 U/7.8 U
1,1-Dichloroethene	0.04 U	0.04 U	0.04 U	10 U/7.8 U
1,2,4-Trichlorobenzene	0.2 U	0.2 U	0.2 U	52 U/39 U
1,2-Dibromo-3-chloropropane (DBCP)	0.086 J(E)	0.2 U	0.2 U	52 U/39 U
1,2-Dichlorobenzene	0.08 U	0.08 U	0.08 U	21 U/16 U
1,2-Dichloroethane	0.04 U	0.04 U	0.04 U	10 U/7.8 U
1,4-Dichlorobenzene	0.08 U	0.08 U	0.08 U	21 U/16 U
Benzene	0.04 U	0.0086 J	0.021 J	8.4 J(E,I)/6 (E,I)
Chlorobenzene	0.04 U	0.04 U	0.04 U	10 U/7.8 U
cis-1,2-Dichloroethene	0.04 U	0.04 U	0.04 U	10 U/7.8 U
Ethylbenzene	0.04 U	0.12	0.87 J(I)	240 (D,E,F,H,I,J)/250 (D,E,F,H,I,J)
Isopropyl benzene	0.2 U	0.055 J	0.11 J	22 J(I)/26 J(I)
Methylene chloride	0.2 U	0.2 U	0.2 U	52 U/39 U
Styrene	0.04 U	0.04 U	0.04 U	10 U/7.8 U
Toluene	0.08 U	0.08 U	0.08 U	21 U/2 J
Trichloroethene	0.04 U	0.04 U	0.04 U	10 U/7.8 U
Vinyl chloride	0.032 U	0.032 U	0.032 U	8.3 U/6.2 U
Xylenes (total)	0.12 U	0.03 J	0.15	700 (D,E,F,H,I,J)/730 (D,E,F,H,I,J)
PCBs				
Total PCBs	0.049 J	0.069 J	0.26 U	0.051 J/0.077 J

SB-3-03	3/7/2003 4-5 ft BGS	3/7/2003 6-8 ft BGS	3/7/2003 13-15 ft BGS
VOCs			
1,1,2-Trichloroethane	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U	0.25 U	0.25 U
1,2-Dichlorobenzene	0.1 U	0.1 U	0.1 U
1,2-Dichloroethane	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene	0.1 U	0.1 U	0.1 U
Chlorobenzene	0.05 U	0.05 U	0.05 U
cis-1,2-Dichloroethene	0.05 U	0.05 U	0.05 U
Ethylbenzene	0.05 U	0.05 U	0.05 U
Isopropyl benzene	0.25 U	0.25 U	0.17 J
Methylene chloride	0.25 U	0.25 U	0.25 U
Styrene	0.05 U	0.05 U	0.05 U
Toluene	0.1 U	0.1 U	0.1 U
Trichloroethene	0.05 U	0.68 (E)	0.05 U
Vinyl chloride	0.1 U	0.1 U	0.1 U
Xylenes (total)	0.15 U	0.15 U	0.15 U

SB-2-03	3/7/2003 2-4 ft BGS	3/7/2003 8-10 ft BGS	3/7/2003 13-15 ft BGS
VOCs			
1,1,2-Trichloroethane	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U	0.25 U	0.25 U
1,2-Dichlorobenzene	0.1 U	0.1 U	0.1 U
1,2-Dichloroethane	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene	0.1 U	0.1 U	0.1 U
Chlorobenzene	0.05 U	0.05 U	0.05 U
cis-1,2-Dichloroethene	0.05 U	0.05 U	0.05 U
Ethylbenzene	0.05 U	0.05 U	0.05 U
Isopropyl benzene	0.25 U	0.25 U	0.25 U
Methylene chloride	0.25 U	0.25 U	0.25 U
Styrene	0.05 U	0.05 U	0.05 U
Toluene	0.1 U	0.1 U	0.1 U
Trichloroethene	0.05 U	0.34 (E)	0.05 U
Vinyl chloride	0.1 U	0.1 U	0.1 U
Xylenes (total)	0.15 U	0.15 U	0.15 U

SB-1-03	3/7/2003 2-4 ft BGS	3/7/2003 8-10 ft BGS	3/7/2003 13-15 ft BGS
VOCs			
1,1,2-Trichloroethane	0.055 U	0.055 U	0.05 U
1,1-Dichloroethene	0.055 U	0.055 U	0.05 U
1,2,4-Trichlorobenzene	0.28 U	0.27 U	0.25 U
1,2,4-Trimethylbenzene	0.28 U	1.1 (I)	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	0.28 U	0.27 U	0.25 U
1,2-Dichlorobenzene	0.11 U	0.11 U	0.1 U
1,2-Dichloroethane	0.055 U	0.055 U	0.05 U
1,4-Dichlorobenzene	0.11 U	0.11 U	0.1 U
Chlorobenzene	0.055 U	0.055 U	0.05 U
cis-1,2-Dichloroethene	0.14	0.055 U	0.05 U
Ethylbenzene	0.055 U	0.13	0.05 U
Isopropyl benzene	0.28 U	0.27 U	0.25 U
Methylene chloride	0.28 U	0.27 U	0.25 U
Styrene	0.055 U	0.055 U	0.05 U
Toluene	0.11 U	0.11 U	0.1 U
Trichloroethene	0.12 (E)	0.055 U	0.05 U
Vinyl chloride	0.11 U	0.11 U	0.1 U
Xylenes (total)	0.17 U	0.16 U	0.15 U

GP19-03D	5/27/2005 0-3 ft BGS	5/27/2005 3-6 ft BGS	5/27/2005 6-9 ft BGS	5/27/2005 9-12 ft BGS
VOCs				
1,1,2-Trichloroethane	20 U	170 U	14 J(E,I)	8.1 U
1,1-Dichloroethene	20 U	170 U	38 U	8.1 U
1,2,4-Trichlorobenzene	98 U	840 U	190 U	40 U
1,2-Dibromo-3-chloropropane (DBCP)	98 U	840 U	190 U	40 U
1,2-Dichlorobenzene	39 U	340 U	76 U	16 U
1,2-Dichloroethane	20 U	170 U	38 U	8.1 U
1,4-Dichlorobenzene	39 U	340 U	76 U	16 U
Benzene	20 U	170 U	38 U	8.1 U
Chlorobenzene	20 U	170 U	38 U	8.1 U
cis-1,2-Dichloroethene	38 (E,I)	260 (C,E,F,I)	58 (E,F,I)	65 (E,F,I)
Ethylbenzene	3.3 J(E,I)	190 (D,E,F,H,I,J)	63 (E,I)	8.1 U
Isopropyl benzene	98 U	840 U	190 U	40 U
Methylene chloride	98 U	840 U	190 U	40 U
Styrene	20 U	170 U	38 U	8.1 U
Toluene	39 U	80 J(E,I)	24 J(E,I)	16 U
Trichloroethene	540 (B,C,D,E,F,H,I,J)	5400 (A,B,C,D,E,F,H,I,J)	1600 (A,B,C,D,E,F,H,I,J)	330 (C,E,F,I)
Vinyl chloride	16 U	130 U	30 U	6.5 U
Xylenes (total)	35 J(E,I)	1900 (D,E,F,H,I,J)	700 (D,E,F,H,I,J)	24 U

SB24-02	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
VOCs				
1,1,2-Trichloroethane	0.049 U	0.04 U	0.04 U	0.04 U
1,1-Dichloroethene	0.014 J	0.04 U	0.04 U	0.04 U
1,2,4-Trichlorobenzene	0.24 U	0.2 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	0.24 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	0.098 U	0.08 U	0.08 U	0.08 U
1,2-Dichloroethane	0.049 U	0.04 U	0.04 U	0.04 U
1,4-Dichlorobenzene	0.098 U	0.08 U	0.08 U	0.08 U
Benzene	0.049 U	0.04 U	0.04 U	0.04 U
Chlorobenzene	0.049 U	0.04 U	0.04 U	0.04 U
cis-1,2-Dichloroethene	0.049 U	0.04 U	0.04 U	0.04 U
Ethylbenzene	0.049 U	0.04 U	0.36	0.88 (I)
Isopropyl benzene	0.24 U	0.2 U	0.23	0.33
Methylene chloride	0.24 U	0.2 U	0.2 U	0.2 U
Styrene	0.049 U	0.04 U	0.04 U	0.04 U
Toluene	0.098 U	0.08 U	0.08 U	0.08 U
Trichloroethene	0.049 U	0.04 U	0.04 U	0.04 U
Vinyl chloride	0.039 U	0.032 U	0.032 U	0.032 U
Xylenes (total)	0.15 U	0.12 U	0.12 U	0.12 U
PCBs				
Total PCBs	0.2 J	0.037 J	0.26 U	0.058 J

TP19-01	6/4/2003 0-11 ft BGS
VOCs	
1,1,2-Trichloroethane	0.065 U
1,1-Dichloroethene	0.065 U
1,2,4-Trichlorobenzene	0.32 U
1,2-Dibromo-3-chloropropane (DBCP)	0.32 U
1,2-Dichlorobenzene	0.13 U
1,2-Dichloroethane	0.065 U
1,4-Dichlorobenzene	0.13 U
Benzene	0.25 (E)
Chlorobenzene	0.065 U
cis-1,2-Dichloroethene	0.065 U
Ethylbenzene	4.4 (E,I)
Isopropyl benzene	4.9 (I)
Methylene chloride	0.32 U
Styrene	0.065 U
Toluene	0.13 U
Trichloroethene	0.065 U
Vinyl chloride	0.13 U
Xylenes (total)	0.19 U
PCBs	
Total PCBs	0.43 U

MW19-25	5/27/2005 0-3 ft BGS	5/27/2005 3-6 ft BGS	5/27/2005 6-9 ft BGS	5/27/2005 9-12 ft BGS
VOCs				
1,1,2-Trichloroethane	0.1 U	0.041 U	0.044 U	0.43 U
1,1-Dichloroethene	0.1 U	0.041 U	0.044 U	0.43 U
1,2,4-Trichlorobenzene	0.52 U	0.21 U	0.22 U	2.1 U
1,2-Dibromo-3-chloropropane (DBCP)	0.52 U	0.21 U	0.22 U	2.1 U
1,2-Dichlorobenzene	0.21 U	0.082 U	0.088 U	0.86 U
1,2-Dichloroethane	0.1 U	0.041 U	0.044 U	0.43 U
1,4-Dichlorobenzene	0.21 U	0.082 U	0.088 U	0.86 U
Benzene	0.1 U	0.041 U	0.044 U	0.43 U
Chlorobenzene	0.1 U	0.041 U	0.044 U	0.43 U
cis-1,2-Dichloroethene	0.087 J	0.041 U	0.22	1.1
Ethylbenzene	0.1 U	0.041 U	0.044 U	0.43 U
Isopropyl benzene	0.52 U	0.21 U	0.22 U	2.1 U
Methylene chloride	0.52 U	0.21 U	0.22 U	2.1 U
Styrene	0.1 U	0.041 U	0.044 U	0.43 U
Toluene	0.21 U	0.082 U	0.088 U	0.86 U
Trichloroethene	4.9 (E,I)	0.04 J	2.4 (E)	17 (E,I)
Vinyl chloride	0.084 U	0.033 U	0.035 U	0.34 U
Xylenes (total)	0.31 U	0.12 U	0.13 U	1.3 U

BH12-99	11/16/1999
VOCs	
1,1,2-Trichloroethane	0.05 U
1,1-Dichloroethene	0.19 (E)
1,2,4-Trimethylbenzene	0.1 U
1,2-Dichlorobenzene	0.1 U
1,4-Dichlorobenzene	0.1 U
Benzene	0.083
cis-1,2-Dichloroethene	17 (E,I)
Ethylbenzene	0.05 U
Toluene	0.05 U
Trichloroethene	5 (E,I)
Vinyl chloride	2 (E,I)
Xylenes (total)	0.15 U

GP19-02D	5/27/2005 0-3 ft BGS	5/27/2005 3-6 ft BGS	5/27/2005 6-9 ft BGS	5/27/2005 9-12 ft BGS
VOCs				
1,1,2-Trichloroethane	0.042 U	0.04 U	0.044 U	0.039 U
1,1-Dichloroethene	0.042 U	0.04 U	0.044 U	0.039 U
1,2,4-Trichlorobenzene	0.21 U	0.19 J	0.22 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	0.21 U	0.2 U	0.22 U	0.19 U
1,2-Dichlorobenzene	0.084 U	0.08 U	0.089 U	0.078 U
1,2-Dichloroethane	0.042 U	0.04 U	0.044 U	0.039 U
1,4-Dichlorobenzene	0.084 U	0.08 U	0.089 U	0.078 U
Benzene	0.042 U	0.0076 J	0.044 U	0.039 U
Chlorobenzene	0.042 U	0.04 U	0.044 U	0.039 U
cis-1,2-Dichloroethene	0.042 U	0.1	0.044 U	0.15
Ethylbenzene	0.042 U	0.045	0.015 J	0.0077 J
Isopropyl benzene	0.21 U	0.019 J	0.22 U	0.19 U
Methylene chloride	0.21 U	0.2 U	0.22 U	0.19 U
Styrene	0.042 U	0.04 U	0.044 U	0.039 U
Toluene	0.084 U	0.064 J	0.089 U	0.078 U
Trichloroethene	0.21 (E)	0.84 (E)	0.41 (E)	0.88 (E)
Vinyl chloride	0.034 U	0.032 U	0.036 U	0.031 U
Xylenes (total)	0.13 U	0.29	0.14	0.073 J

GP19-01D	5/25/2005 0-3 ft BGS	5/25/2005 3-6 ft BGS	5/25/2005 6-9 ft BGS	5/25/2005 9-12 ft BGS
VOCs				
1,1,2-Trichloroethane	0.043 U	0.042 U	0.044 U	0.042 U
1,1-Dichloroethene	0.043 U	0.042 U	0.044 U	0.042 U
1,2,4-Trichlorobenzene	0.21 U	0.21 U	0.062 J	0.15 J
1,2-Dibromo-3-chloropropane (DBCP)	0.21 U	0.21 U	0.22 U	0.21 U
1,2-Dichlorobenzene	0.085 U	0.084 U	0.088 U	0.035 J
1,2-Dichloroethane	0.043 U	0.042 U	0.044 U	0.042 U
1,4-Dichlorobenzene	0.085 U	0.084 U	0.088 U	0.084 U
Benzene	0.043 U	0.042 U	0.044 U	0.042 U
Chlorobenzene	0.043 U	0.042 U	0.044 U	0.042 U
cis-1,2-Dichloroethene	0.043 U	0.042 U	0.16	0.34
Ethylbenzene	0.043 U	0.042 U	0.044 U	0.042 U
Isopropyl benzene	0.21 U	0.21 U	0.22 U	0.21 U
Methylene chloride	0.21 U	0.21 U	0.22 U	0.21 U
Styrene	0.043 U	0.042 U	0.044 U	0.042 U
Toluene	0.085 U	0.084 U	0.088 U	0.084 U
Trichloroethene	0.033 J	0.042 U	0.43 (E)	2 (E)
Vinyl chloride	0.034 U	0.034 U	0.035 U	0.034 U
Xylenes (total)	0.13 U	0.13 U	0.13 U	0.13 U

TP-A30	6/14/2005 2-2 ft BGS	6/14/2005 5.7-5.7 ft BGS	6/14/2005 16-16 ft BGS
VOCs			
1,1,2-Trichloroethane	270 U	78 U	0.8 U
1,1-Dichloroethene	270 U	78 U	0.8 U
1,2,4-Trichlorobenzene	1400 U	390 U	4 U
1,2-Dichlorobenzene	540 U	160 U	1.6 U
1,2-Dichloroethane	270 U	78 U	0.8 U
1,4-Dichlorobenzene	540 U	160 U	1.6 U
Benzene	270 U	78 U	0.8 U
Chlorobenzene	270 U	78 U	0.8 U
cis-1,2-Dichloroethene	1400 (A,B,C,D,E,F,H,I,J)	300 (C,E,F,I)	2 (E)
Ethylbenzene	280 (D,E,F,H,I,J)	89 (E,I)	0.8 U
Isopropyl benzene	290 J(E,I)	80 J(I)	4 U
Methylene chloride	1400 U	390 U	4 U
Styrene	270 U	78 U	0.8 U
Toluene	930 (D,E,F,H,I,J)	450 (D,E,F,H,I,J)	1.6 U
Trichloroethene	9700 (A,B,C,D,E,F,H,I,J)	2500 (A,B,C,D,E,F,H,I,J)	0.56 J(E)
Vinyl chloride	220 U	62 U	26 (E,F,H,I)
Xylenes (total)	2600 (D,E,F,H,I,J)	750 (D,E,F,H,I,J)	0.34 J
PCBs			
Total PCBs	1.8	0.53	0.26 U

TP19-05	6/4/2003 -	6/5/2003 0-11 ft BGS
VOCs		
1,1,2-Trichloroethane	0.064 U	0.055 U
1,1-Dichloroethene	0.064 U	0.055 U
1,2,4-Trichlorobenzene	0.32 U	0.28 U
1,2-Dibromo-3-chloropropane (DBCP)	0.32 U	0.28 U
1,2-Dichlorobenzene	0.13 U	0.11 U
1,2-Dichloroethane	0.064 U	0.055 U
1,4-Dichlorobenzene	0.13 U	0.11 U
Benzene	0.064 U	0.055 U
Chlorobenzene	0.064 U	0.055 U
cis-1,2-Dichloroethene	0.064 U	0.055 U
Ethylbenzene	0.064 U	0.055 U
Isopropyl benzene	0.32 U	0.28 U
Methylene chloride	0.32 U	0.28 U
Styrene	0.064 U	0.055 U
Toluene	0.13 U	0.11 U
Trichloroethene	1.4 (E)	0.055 U
Vinyl chloride	0.13 U	0.11 U
Xylenes (total)	0.19 U	0.17 U
PCBs		
Total PCBs	0.42 U	0.37 U

PAOC 20
PAOC 23
PAOC 24
PAOC 29
MW-3
MW-4
MW-7
MW-18
MW19-10
MW19-25
MW19-08
MW19-09
SB24-01
SB24-02
SB23-03
SB23-04
SB-3-03
SB-2-03
SB-1-03
TP19-01
TP19-02
TP19-05
TP19-06
TP-A30
BH12-99
GP19-03D
GP19-03S
GP19-02D
GP19-02S
GP19-01D
GP19-01S
IW-1
IW-2
IW-3
IW-4
IW-5
IW-6
IW-7
IW-8
IW-9
IW-10
IW-11
IW-12
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IW-14
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IW-26
IW-26R
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IW-28
IW-29
IW-30
IW-31
IW-32
IW-33
IW-34
IW-35
IW-36
IW-37
IW-38
IW-39
IW-40
PZ-1
PZ-2
PZ-2A
PZ-3
IA-001
IA-002
IA-003
IA-005
IA-006
IA-007
IA-008
BH12-99
SB19-19
SB19-27
SB19-36
SB19-40
SB19-42
SB19-43
SB19-44
SB19-45
SAN MTR.
STORM M.H.
SHED
MH1
CB9
CB8
1FT RIM
HAULAWAY BLDG.
HAULAWAY YARD
GUARD SHACK
R.S.
S.S.
STM.
RUE

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

* - MW2 CONVERTED TO IW-33

SOIL CRITERIA (NON-RESIDENTIAL)

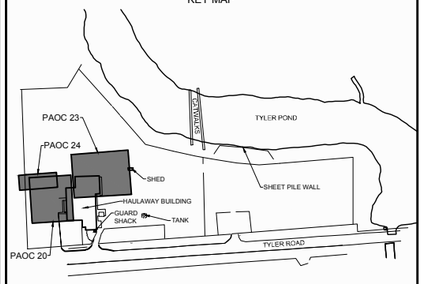
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION — TP19-02 — 6/3/2003 — DATE
PARAMETER — 1,1,2-Trichloroethane — 0.055 U — DEPTH
1,1-Dichloroethene — 0.055 U
1,2,4-Trichlorobenzene — 0.27 U — RESULT
1,2-Dibromo-3-chloropropane (DBCP) — 0.27 U
1,2-Dichlorobenzene — 0.11 U
1,2-Dichloroethane — 0.055 U
1,4-Dichlorobenzene — 0.11 U
Benzene — 0.055 U
Chlorobenzene — 0.055 U
cis-1,2-Dichloroethene — 0.15
Ethylbenzene — 0.055 U
Isopropyl benzene — 0.27 U
Methylene chloride — 0.27 U
Styrene — 0.055 U
Toluene — 0.11 U
Trichloroethene — 1.8 (E) — EXCEEDANCE
Vinyl chloride — 0.11 U
Xylenes (total) — 0.16 U
PCBs
Total PCBs — 1.6

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - VOCs AND PCBs PAOCS 20/23/24

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project Nº: 17303-T05	Report Nº: 008	Drawing Nº: FIGURE 3.4

17303-T05(008)GN-WI003 JUL 26/2011

DRAFT FOR REVIEW

N

0 15 30ft

TP19-02	6/3/2003 -
SVOCs	
2,4-Dimethylphenol	0.72 U
2-Methylnaphthalene	3.3
Acenaphthene	20 (I)
Acenaphthylene	0.72 U
Anthracene	26
Benzo(a)anthracene	47
Benzo(a)pyrene	41 (D)
Benzo(b)fluoranthene	53
Benzo(k)fluoranthene	24
Carbazole	14 U
Dibenz(a,h)anthracene	14 U
Dibenzofuran	14 U
Di-n-butylphthalate (DBP)	0.72 U
Fluoranthene	98 (I)
Fluorene	15 (I)
Indeno(1,2,3-cd)pyrene	18
Naphthalene	14 U
Phenanthrene	94 (I)
Phenol	0.72 U

SB23-03	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
SVOCs				
2,4-Dimethylphenol	0.66 U	0.26 U	0.26 U	0.26 U/0.26 U
2-Methylnaphthalene	0.66 U	0.26 U	0.26 U	0.037 J/0.077 J
4-Methylphenol	0.66 U	0.26 U	0.26 U	0.26 U/0.26 U
Acenaphthene	0.2 J	0.26 U	0.26 U	0.017 J/0.26 U
Acenaphthylene	0.66 U	0.26 U	0.26 U	0.26 U/0.26 UJ
Anthracene	0.34 J	0.017 J	0.26 U	0.18 J/0.018 J
Benzo(a)anthracene	0.94 J	0.07 J	0.26 U	0.041 J/0.28
Benzo(a)pyrene	0.93 J	0.095 J	0.26 U	0.26/0.033 J
Benzo(b)fluoranthene	1.1 J	0.11 J	0.26 U	0.31/0.042 J
Benzo(k)fluoranthene	0.53 J	0.042 J	0.26 U	0.12 J/0.024 J
Carbazole	0.24 J	0.26 U	0.26 U	0.053 J/0.26 U
Dibenz(a,h)anthracene	0.14 J	0.029 J	0.26 U	0.26 U/0.046 J
Dibenzofuran	0.068 J	0.26 U	0.26 U	0.26 UJ/0.039 J
Di-n-butylphthalate (DBP)	0.66 U	0.26 U	0.26 U	0.26 U/0.26 U
Fluoranthene	3.2 J	0.14 J	0.26 U	0.14 J/0.92
Fluorene	0.15 J	0.26 U	0.26 U	0.08 J/0.26 UJ
Indeno(1,2,3-cd)pyrene	0.49 J	0.052 J	0.26 U	0.019 J/0.12 J
Naphthalene	0.66 U	0.26 U	0.26 U	0.046 J/0.022 J
Phenanthrene	2.2 J(I)	0.054 J	0.26 U	0.077 J/0.79
Phenol	0.66 U	0.26 U	0.26 U	0.26 U/0.26 U

TP19-06	6/4/2003 -
SVOCs	
2,4-Dimethylphenol	0.75 U
2-Methylnaphthalene	1.4
Acenaphthene	0.75 U
Acenaphthylene	0.75 U
Anthracene	0.75 U
Benzo(a)anthracene	0.75 U
Benzo(a)pyrene	0.75 U
Benzo(b)fluoranthene	0.75 U
Benzo(k)fluoranthene	0.75 U
Carbazole	0.75 U
Dibenz(a,h)anthracene	0.75 U
Dibenzofuran	0.75 U
Di-n-butylphthalate (DBP)	0.75 U
Fluoranthene	0.75 U
Fluorene	0.75 U
Indeno(1,2,3-cd)pyrene	0.75 U
Naphthalene	1.1 (I)
Phenanthrene	0.75 U
Phenol	0.75 U

SB24-01	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
SVOCs				
2,4-Dimethylphenol	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U
2-Methylnaphthalene	0.26 U	0.26 U	0.017 J	1/4
4-Methylphenol	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U
Acenaphthene	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U
Acenaphthylene	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U
Anthracene	0.018 J	0.022 J	0.071 J	0.044 J/0.17 J
Benzo(a)anthracene	0.048 J	0.068 J	0.17 J	0.073 J/0.16 J
Benzo(a)pyrene	0.052 J	0.069 J	0.15 J	0.097 J/0.13 J
Benzo(b)fluoranthene	0.062 J	0.083 J	0.18 J	0.11 J/0.18 J
Benzo(k)fluoranthene	0.028 J	0.045 J	0.07 J	0.05 J/1.8 U
Carbazole	0.26 U	0.26 U	0.048 J	0.036 J/1.8 U
Dibenz(a,h)anthracene	0.26 U	0.26 U	0.032 J	0.044 J/1.8 U
Dibenzofuran	0.26 U	0.26 U	0.022 J	0.034 J/0.21 J
Di-n-butylphthalate (DBP)	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U
Fluoranthene	0.12 J	0.16 J	0.44 J	0.28 J/0.79 J
Fluorene	0.014 J	0.26 U	0.052 J	0.076 J/0.33 J
Indeno(1,2,3-cd)pyrene	0.027 J	0.038 J	0.067 J	0.056 J/1.8 U
Naphthalene	0.26 U	0.26 U	0.04 J	2 (I)/9.3 (I)
Phenanthrene	0.091 J	0.088 J	0.34 J	0.21 J/1.1 J
Phenol	0.26 U	0.26 U	0.26 U	0.53 U/1.8 U

TP19-01	6/4/2003 0-11 ft BGS
SVOCs	
2,4-Dimethylphenol	0.43 U
2-Methylnaphthalene	0.43 U
Acenaphthene	0.43 U
Acenaphthylene	0.43 U
Anthracene	0.43 U
Benzo(a)anthracene	0.43 U
Benzo(a)pyrene	0.43 U
Benzo(b)fluoranthene	0.43 U
Benzo(k)fluoranthene	0.43 U
Carbazole	0.43 U
Dibenz(a,h)anthracene	0.43 U
Dibenzofuran	0.43 U
Di-n-butylphthalate (DBP)	0.43 U
Fluoranthene	0.43 U
Fluorene	0.43 U
Indeno(1,2,3-cd)pyrene	0.43 U
Naphthalene	0.43 U
Phenanthrene	1.1
Phenol	0.43 U

SB24-02	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
SVOCs				
2,4-Dimethylphenol	0.26 U	0.26 U	2.6 U	11 U
2-Methylnaphthalene	0.02 J	0.26 U	2.6 U	24 (I)
4-Methylphenol	0.26 U	0.26 U	2.6 U	11 U
Acenaphthene	0.26 U	0.26 U	2.6 U	11 U
Acenaphthylene	0.26 U	0.26 U	2.6 U	11 U
Anthracene	0.26 U	0.016 J	2.6 U	11 U
Benzo(a)anthracene	0.021 J	0.099 J	2.6 U	11 U
Benzo(a)pyrene	0.035 J	0.092 J	2.6 U	11 U
Benzo(b)fluoranthene	0.045 J	0.11 J	2.6 U	11 U
Benzo(k)fluoranthene	0.017 J	0.054 J	2.6 U	11 U
Carbazole	0.26 U	0.26 U	2.6 U	11 U
Dibenz(a,h)anthracene	0.26 U	0.028 J	2.6 U	11 U
Dibenzofuran	0.26 U	0.26 U	2.6 U	1.1 J
Di-n-butylphthalate (DBP)	0.26 U	0.26 U	2.6 U	11 U
Fluoranthene	0.041 J	0.17 J	2.6 U	11 U
Fluorene	0.26 U	0.26 U	2.6 U	11 U
Indeno(1,2,3-cd)pyrene	0.026 J	0.047 J	2.6 U	11 U
Naphthalene	0.26 U	0.26 U	2.6 U	4.4 J(I)
Phenanthrene	0.019 J	0.049 J	0.63 J	4.4 J(I)
Phenol	0.26 U	0.26 U	2.6 U	11 U

SB23-04	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
SVOCs				
2,4-Dimethylphenol	0.26 U	0.26 U	0.26 U	0.26 U
2-Methylnaphthalene	0.039 J	0.26 U	0.26 U	0.26 U
4-Methylphenol	0.26 U	0.26 U	0.26 U	0.26 U
Acenaphthene	0.26 U	0.26 U	0.26 U	0.26 U
Acenaphthylene	0.26 U	0.26 U	0.26 U	0.26 U
Anthracene	0.26 U	0.28 U	0.26 U	0.26 U
Benzo(a)anthracene	0.08 J	0.26 U	0.26 U	0.26 U
Benzo(a)pyrene	0.1 J	0.26 U	0.26 U	0.26 U
Benzo(b)fluoranthene	0.14 J	0.26 U	0.26 U	0.26 U
Benzo(k)fluoranthene	0.047 J	0.26 U	0.26 U	0.26 U
Carbazole	0.26 U	0.26 U	0.26 U	0.26 U
Dibenz(a,h)anthracene	0.033 J	0.26 U	0.26 U	0.26 U
Dibenzofuran	0.26 U	0.26 U	0.26 U	0.26 U
Di-n-butylphthalate (DBP)	0.26 U	0.26 U	0.26 U	0.26 U
Fluoranthene	0.16 J	0.26 U	0.26 U	0.014 J
Fluorene	0.26 U	0.26 U	0.26 U	0.26 U
Indeno(1,2,3-cd)pyrene	0.065 J	0.26 U	0.26 U	0.26 U
Naphthalene	0.26 U	0.26 U	0.26 U	0.26 U
Phenanthrene	0.043 J	0.26 U	0.26 U	0.26 U
Phenol	0.26 U	0.26 U	0.26 U	0.26 U

TP-A30	6/14/2005 2-2 ft BGS	6/14/2005 5.7-5.7 ft BGS	6/14/2005 16-16 ft BGS
SVOCs			
2,4-Dimethylphenol	53 U	13 U	1.3 U
2-Methylnaphthalene	52 J(I)	7.8 J(I)	0.1 J
4-Methylphenol	4.1 J#(I)	2.6 J#(I)	1.3 U
Acenaphthene	7.5 J	4.2 J	0.13 J
Acenaphthylene	53 U	13 U	1.3 U
Anthracene	53 U	2.1 J	0.095 J
Benzo(a)anthracene	19 J	2.7 J	1.3 U
Benzo(a)pyrene	7.2 J	1.7 J	1.3 U
Benzo(b)fluoranthene	20 J	2.6 J	1.3 U
Benzo(k)fluoranthene	8.1 J	1.3 J	1.3 U
Carbazole	13 J(I)	1.5 J(I)	1.3 U
Dibenz(a,h)anthracene	53 U	13 U	1.3 U
Dibenzofuran	40 J(I)	5.1 J(I)	0.12 J
Di-n-butylphthalate (DBP)	190 (I)	38 (I)	0.64 J
Fluoranthene	74 (I)	9.8 J(I)	0.31 J
Fluorene	53 U	3.2 J	0.14 J
Indeno(1,2,3-cd)pyrene	5.6 J	0.9 J	1.3 U
Naphthalene	210 (E,I)	36 (I)	0.32 J
Phenanthrene	140 (I)	19 (I)	0.52 J
Phenol	67 (I)	8.7 J	1.3 U

TP19-05	6/4/2003 -	6/5/2003 0-11 ft BGS
SVOCs		
2,4-Dimethylphenol	0.42 U	0.37 U
2-Methylnaphthalene	0.42 U	0.37 U
Acenaphthene	0.42 U	0.37 U
Acenaphthylene	0.42 U	0.37 U
Anthracene	0.42 U	0.37 U
Benzo(a)anthracene	0.42 U	0.37 U
Benzo(a)pyrene	0.42 U	0.37 U
Benzo(b)fluoranthene	0.42 U	0.37 U
Benzo(k)fluoranthene	0.42 U	0.37 U
Carbazole	0.42 U	0.37 U
Dibenz(a,h)anthracene	0.42 U	0.37 U
Dibenzofuran	0.42 U	0.37 U
Di-n-butylphthalate (DBP)	0.42 U	0.37 U
Fluoranthene	0.42 U	0.37 U
Fluorene	0.42 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.42 U	0.37 U
Naphthalene	0.42 U	0.37 U
Phenanthrene	0.42 U	0.37 U
Phenol	0.42 U	0.37 U

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

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J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

- THE REPORTED CONCENTRATION MAY BE EITHER 3 METHYLPHENOL AND/OR 4 METHYLPHENOL

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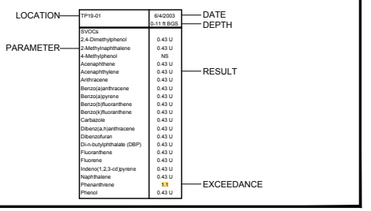
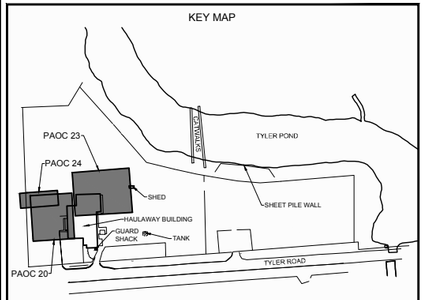
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS



SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - SVOCs PAOCS 20/23/24

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:			
Project Manager: B. LANDALE	Reviewed By: M. RADULESCU	Date: JUNE 2011	
Scale: AS SHOWN	Project Nº: 17303-T05	Report Nº: 008	Drawing Nº: FIGURE 3.5

17303-T05(008)GN-WI005 JUL 26/2011

DRAFT FOR REVIEW

N

0 15 30ft

SB23-03	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
Inorganics				
Antimony	1.9 J	0.028 J	R	0.083 J/0.036 J
Arsenic	2.5	1.8	3.4	1.3/1.4
Barium	28.2	9.6	17.9	13.0/9.9
Cadmium	0.39	0.034 J	0.080 U	0.025 J/0.055 J
Chromium	18.5 (I)	14.4 (I)	10.2 (I)	8.0 (I)/11.3 (I)
Cobalt	3.2	2.7	3.6	3.6/2.8
Copper	8.2	5.8	8.2	6.2/7.7
Lead	12.8	7.7	5.8	6.5/5.4
Manganese	199	63.7	139	135/104
Mercury	0.040 U	0.033 J	0.040 U	0.040 U/0.040 U
Nickel	7.8	5.7	8.0	6.0/8.7
Selenium	0.16 U	0.094 J	0.11 J	0.10 J/0.16 U
Silver	0.042 J	0.017 J	0.026 J	0.029 J/0.031 J
Thallium	0.066 J	0.035 J	0.061 J	0.060 J/0.054 J
Zinc	50.2 J	20.6	16.8	18.5/17.9

TP19-02	6/3/2003
Inorganics	
Aluminum	2970
Antimony	29.6 (E)
Arsenic	3.05 J
Barium	28.5 J
Cadmium	0.871 J
Chromium	35.4 (E,I)
Cobalt	2.3
Copper	11.5 J
Iron	8720
Lead	969 (D,E)
Magnesium	7780
Manganese	180
Mercury	0.11 U
Nickel	6.14
Selenium	0.22 U
Silver	0.55 UJ
Thallium	6.47 (E,I)
Zinc	72.9

TP19-06	6/4/2003
Inorganics	
Aluminum	5020
Antimony	32.6 (E)
Arsenic	4.56 J
Barium	223 J
Cadmium	6.9 J(E)
Chromium	56.1 (E,I)
Cobalt	7.94 (E,I)
Copper	12.1 J
Iron	10900
Lead	58.1
Magnesium	5730
Manganese	216
Mercury	0.11 U
Nickel	12
Selenium	1.04 J(I)
Silver	0.57 UJ
Thallium	9.18 (E,I)
Zinc	145

SB23-04	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
Inorganics				
Antimony	0.84 J	0.039 J	0.16 UJ	0.089 J
Arsenic	1.9	3.5	1.3	1.7
Barium	25.3	7.5	4.6	10.3
Cadmium	0.25	0.080 U	0.074 J	0.051 J
Chromium	10.4 (I)	24.9 (I)	21.8 (I)	21.9 (I)
Cobalt	1.9	2.9	1.7	2.2
Copper	5.2	6.2	3.1	4.4
Lead	51.5	5.1	13.1	5.0
Manganese	211	86.9	118	140
Mercury	0.017 J	0.0093 J	0.0080 J	0.040 U
Nickel	5.1	6.0	3.6	5.3
Selenium	0.095 J	0.098 J	0.16 U	0.16 U
Silver	0.050 J	0.029 J	0.018 J	0.024 J
Thallium	0.055 J	0.054 J	0.025 J	0.042 J
Zinc	68.8	15.1	10.9 J	12.5

SB24-01	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
Inorganics				
Antimony	0.048 J	0.087 J	0.046 J	0.42 J/0.49 J
Arsenic	2.6	2.8	2.5	2.6/3.6
Barium	36.7	33.2	34.6	2390 (E,I)/73.7
Cadmium	0.19	0.20	0.16	6.8 (E)/0.92
Chromium	53.7 (E,I)	23.6 (I)	9.0 (I)	17.8 (I)/53.7 (E,I)
Cobalt	5.6	3.4	3.2	2.9/7.3 (E,I)
Copper	9.6	9.8	8.4	9.7/16.4
Lead	38.5	15.5	18.7	62.9/87.1
Manganese	239	254	308	164/184
Mercury	0.043	0.041	0.018 J	0.017 J/0.031 J
Nickel	10.3	7.6	7.7	8.1/16.6
Selenium	0.094 J	0.12 J	0.15 J	2.6 (I)/0.79 (I)
Silver	0.038 J	0.042 J	0.044 J	0.062 J/0.036 J
Thallium	0.080	0.094	0.090	0.11/0.060 J
Zinc	41.2	39.2	25.3	92.0/194

SB24-02	6/3/2005 0-3 ft BGS	6/3/2005 3-6 ft BGS	6/3/2005 6-9 ft BGS	6/3/2005 9-11 ft BGS
Inorganics				
Antimony	0.084 J	0.084 J	0.033 J	0.042 J
Arsenic	2.5	2.2	1.4	2.4
Barium	21.5	15.1	17.8	19.7
Cadmium	0.11	0.12	0.045 J	0.11
Chromium	8.7 (I)	7.2 (I)	6.7 (I)	8.1 (I)
Cobalt	2.9	2.6	2.2	2.7
Copper	9.1	7.7	5.3	8.9
Lead	21.8	7.3	13.7	12.2
Manganese	173	152	142	129
Mercury	0.040 U	0.040 U	0.0056 J	0.0087 J
Nickel	7.0	7.4	5.7	7.0
Selenium	0.096 J	0.16 U	0.085 J	0.10 J
Silver	0.030 J	0.029 J	0.021 J	0.026 J
Thallium	0.055 J	0.051 J	0.040 J	0.051 J
Zinc	25.4	17.2	14.5	17.1

TP-A30	6/14/2005 2-2 ft BGS	6/14/2005 5.7-5.7 ft BGS	6/14/2005 16-16 ft BGS
Inorganics			
Antimony	645 J(E,I)	207 J(E,I)	0.027 J
Arsenic	3.8 J	2.1 J	1.8 J
Barium	2230 (E,I)	722	49.2
Cadmium	63.2 (E,I)	18.7 (E,I)	0.21
Chromium	14500 (D,E,G,I)	2220 (E,G,I)	13.5 (I)
Cobalt	37.1 (E,I)	18.1 (E,I)	6.7
Copper	236 (I)	258 (I)	16.8
Lead	433	417	14.8
Manganese	276	164	331
Mercury	0.049	0.076	0.040 U
Nickel	9.5	13.1	18.0
Selenium	16.0 UJ	0.98 J(I)	0.16 J
Silver	8.0 UJ	0.80 UJ	0.041 J
Thallium	8.0 UJ	0.044 J	0.15 J
Zinc	17000 (E,I)	1920 (I)	26.6

TP19-01	6/4/2003 0-11 ft BGS
Inorganics	
Aluminum	945
Antimony	3.37
Arsenic	0.61 J
Barium	4.83 J
Cadmium	0.065 UJ
Chromium	8.98 (I)
Cobalt	1.26
Copper	1.5 J
Iron	2800
Lead	1.7
Magnesium	6850
Manganese	94.6
Mercury	0.13 U
Nickel	3.23
Selenium	0.26 U
Silver	0.65 UJ
Thallium	1.32
Zinc	10.4

TP19-05	6/4/2003 -	6/5/2003 0-11 ft BGS
Inorganics		
Aluminum	2620	1040
Antimony	8.78 (E)	3.25
Arsenic	1.81 J	6.23 J(E,I)
Barium	15.9 J	2.61 J
Cadmium	0.409 J	0.513
Chromium	27.2 (I)	7.7 (I)
Cobalt	2.45	1.25
Copper	6.47 J	2.19 J
Iron	5990	2240
Lead	15.1	1.31
Magnesium	4530	5970
Manganese	173	68.7
Mercury	0.13 U	0.11 U
Nickel	6.37	3.31
Selenium	0.26 U	0.571 J(I)
Silver	0.64 UJ	0.55 UJ
Thallium	4.43 (E,I)	1.67
Zinc	49.2	8.81

PAOC 29

PAOC 23

PAOC 24

PAOC 20

SB24-01

SB24-02

MW-7

MW-18

TP19-02

MW19-10

SB23-03

TP19-06

SB23-04

TP19-01

TP-A30

TP19-05

MW-4

MW-2

MW19-08

MW19-09

MW19-25

SB19-27

SB19-40

SB19-42

SB19-36

HAULAWAY BLDG.

HAULAWAY YARD

SHED

SUMP

MH1

SAN.M.H.

STM MH 2

R.S.

1FT RIM

CB3

CB8

CB9

IW-1 IW-2 IW-3 IW-4 IW-5 IW-6 IW-7 IW-8 IW-9 IW-10 IW-11 IW-12 IW-13 IW-14 IW-15 IW-16 IW-17 IW-18 IW-19 IW-20 IW-21 IW-22 IW-23 IW-24 IW-25 IW-26 IW-26R IW-27 IW-28 IW-29 IW-30 IW-31 IW-32 IW-33 IW-34 IW-35 IW-36 IW-37 IW-38 IW-39 IW-40

IA-001 IA-002 IA-003 IA-004 IA-005 IA-006 IA-007 IA-008

GP19-01S GP19-02D GP19-02S GP19-03D GP19-03S GP19-04D GP19-04S GP19-01D

PZ-1 PZ-2A PZ-3 PZ-2

SB-1-03 SB-2-03 SB-3-03

BH12-99

SB19-19

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

R - THE DATA IS QUALIFIED AS UNUSABLE (NOTE: ANALYTE MAY OR MAY NOT BE PRESENT)

* - MW2 CONVERTED TO IW-33

SOIL CRITERIA (NON-RESIDENTIAL)

A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION — TP19-01
PARAMETER — Inorganics

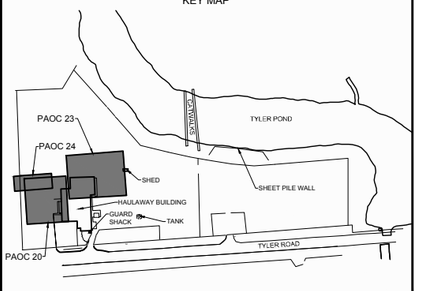
	6/4/2003 0-11 ft BGS
Aluminum	945 (E)
Antimony	3.37
Arsenic	0.61 J
Barium	4.83 J
Cadmium	0.065 UJ
Chromium	8.98 (I)
Cobalt	1.26
Copper	1.5 J
Cyanide (total)	NS
Iron	2800 (E)
Lead	1.7
Lead - total (calculated by fine/coarse fraction)	NS
Magnesium	6850
Manganese	94.6 (E)
Mercury	0.13 U
Nickel	3.23
Selenium	0.26 U
Silver	0.65 UJ
Thallium	1.32
Zinc	10.4

DATE — 6/4/2003
DEPTH — 0-11 ft BGS
RESULT
EXCEEDANCE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - INORGANICS PAOCS 20/23/24

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	OCTOBER 2011	
Scale: AS SHOWN	Project No: 17303-T05	Report No: 008	Drawing No: FIGURE 3.6

17303-T05(008)GN-WI004 OCT 12/2011

DRAFT FOR REVIEW

0 25 50ft

TP-A6S	6/9/2005 2.5-2.5 ft BGS	6/9/2005 6-6 ft BGS
VOCs		
1,1,2-Trichloroethane	1.4 U	NS
1,1-Dichloroethene	1.4 U	NS
1,2,4-Trichlorobenzene	7.1 U	NS
1,2-Dibromo-3-chloropropane (DBCP)	7.1 U	NS
1,2-Dichlorobenzene	2.9 U	NS
1,2-Dichloroethane	1.4 U	NS
1,4-Dichlorobenzene	2.9 U	NS
Benzene	1.4 U	NS
Chlorobenzene	1.4 U	NS
cis-1,2-Dichloroethene	1.4 U	NS
Ethylbenzene	7.9 (E,I)	NS
Isopropyl benzene	3.2 J	NS
Methylene chloride	R	NS
Styrene	2.6 (I)	NS
Toluene	2.3 J	NS
Trichloroethene	3.7 (E)	NS
Vinyl chloride	1.1 U	NS
Xylenes (total)	13 (E,I)	NS
PCBs		
Total PCBs	5.3	2.7

MW19-12	11/19/2003 0-2 ft BGS	11/19/2003 11.5-13.5 ft BGS
VOCs		
1,1,2-Trichloroethane	0.047 U	0.057 U
1,1-Dichloroethene	0.047 U	0.057 U
1,2,4-Trichlorobenzene	0.23 U	0.58
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U	0.28 U
1,2-Dichlorobenzene	0.094 U	0.11 U
1,2-Dichloroethane	0.047 U	0.057 U
1,4-Dichlorobenzene	0.094 U	0.11 U
Benzene	0.047 U	0.018 J
Chlorobenzene	0.047 U	0.057 U
cis-1,2-Dichloroethene	0.047 U	0.041 J
Ethylbenzene	0.047 U	0.028 J
Isopropyl benzene	0.23 U	0.028 J
Methylene chloride	0.23 U	0.28 U
Styrene	0.047 U	0.057 U
Toluene	0.094 U	0.11 U
Trichloroethene	0.31 (E)	0.47 (E)
Vinyl chloride	0.094 U	0.15 (E)
Xylenes (total)	0.47 U	0.57 U

TP-I	6/8/2005 4-4 ft BGS
VOCs	
1,1,2-Trichloroethane	1.2 U
1,1-Dichloroethene	1.2 U
1,2,4-Trichlorobenzene	6.2 U
1,2-Dibromo-3-chloropropane (DBCP)	6.2 U
1,2-Dichlorobenzene	0.73 J(I)
1,2-Dichloroethane	1.2 U
1,4-Dichlorobenzene	2.5 U
Benzene	6.2 (E,I)
Chlorobenzene	1.2 U
cis-1,2-Dichloroethene	1.2 U
Ethylbenzene	34 (E,I)
Isopropyl benzene	3.3 J(I)
Methylene chloride	R
Styrene	1.2 U
Toluene	1.5 J
Trichloroethene	1.2 U
Vinyl chloride	0.98 U
Xylenes (total)	120 (E,I)
PCBs	
Total PCBs	2.7

MW19-14	11/12/2003 0-2 ft BGS	11/12/2003 11-13 ft BGS
VOCs		
1,1,2-Trichloroethane	0.11 U	0.21 U
1,1-Dichloroethene	0.11 U	0.21 U
1,2,4-Trichlorobenzene	0.53 U	1.1 U
1,2-Dibromo-3-chloropropane (DBCP)	0.53 U	1.1 U
1,2-Dichlorobenzene	0.21 U	0.42 U
1,2-Dichloroethane	0.11 U	0.21 U
1,4-Dichlorobenzene	0.21 U	0.42 U
Benzene	0.11 U	0.21 U
Chlorobenzene	0.11 U	0.21 U
cis-1,2-Dichloroethene	0.11 U	0.21
Ethylbenzene	0.21 U	0.21 U
Isopropyl benzene	0.53 U	1.1 U
Methylene chloride	0.53 U	1.1 U
Styrene	0.11 U	0.21 U
Toluene	0.21 U	0.42 U
Trichloroethene	1.2 (E)	5.2 (E,I)
Vinyl chloride	0.21 U	0.42 U
Xylenes (total)	1.1 U	2.1 U
PCBs		
Total PCBs	0.38	0.14

SB19-05	11/13/2003 6-8 ft BGS
VOCs	
1,1,2-Trichloroethane	0.066 UJ
1,1-Dichloroethene	0.066 UJ
1,2,4-Trichlorobenzene	0.33 UJ
1,2-Dibromo-3-chloropropane (DBCP)	0.33 UJ
1,2-Dichlorobenzene	0.13 UJ
1,2-Dichloroethane	0.066 UJ
1,4-Dichlorobenzene	0.13 UJ
Benzene	0.066 UJ
Chlorobenzene	0.066 UJ
cis-1,2-Dichloroethene	0.066 UJ
Ethylbenzene	0.17 J
Isopropyl benzene	0.079 J
Methylene chloride	0.33 UJ
Styrene	0.066 UJ
Toluene	0.022 J
Trichloroethene	0.066 UJ
Vinyl chloride	0.13 UJ
Xylenes (total)	0.64 J
PCBs	
Total PCBs	2.1

TP-L	6/8/2005 3-3 ft BGS
VOCs	
1,1,2-Trichloroethane	0.94 U
1,1-Dichloroethene	0.94 U
1,2,4-Trichlorobenzene	4.7 U
1,2-Dibromo-3-chloropropane (DBCP)	4.7 U
1,2-Dichlorobenzene	1.9 U
1,2-Dichloroethane	0.94 U
1,4-Dichlorobenzene	1.9 U
Benzene	0.94 U
Chlorobenzene	0.94 U
cis-1,2-Dichloroethene	0.58 J
Ethylbenzene	0.94 U
Isopropyl benzene	4.7 U
Methylene chloride	R
Styrene	0.94 U
Toluene	1.9 U
Trichloroethene	5 (E,I)
Vinyl chloride	0.75 U
Xylenes (total)	2.8 U
PCBs	
Total PCBs	1.6 U

TP-A6S2	6/13/2005 9-9 ft BGS
VOCs	
1,1,2-Trichloroethane	0.04 U
1,1-Dichloroethene	0.04 U
1,2,4-Trichlorobenzene	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	0.2 U
1,2-Dichlorobenzene	0.08 U
1,2-Dichloroethane	0.04 U
1,4-Dichlorobenzene	0.08 U
Benzene	0.04 U
Chlorobenzene	0.04 U
cis-1,2-Dichloroethene	0.04 U
Ethylbenzene	0.04 U
Isopropyl benzene	0.2 U
Methylene chloride	0.2 U
Styrene	0.04 U
Toluene	0.08 U
Trichloroethene	0.25 U
Vinyl chloride	0.016 J
Xylenes (total)	0.02 J
PCBs	
Total PCBs	0.26 U

MW19-15	11/11/2003 0-2 ft BGS	11/11/2003 7-9 ft BGS	11/11/2003 9-9.5 ft BGS
VOCs			
1,1,2-Trichloroethane	0.041 U	R	R
1,1-Dichloroethene	0.041 U	R	R
1,2,4-Trichlorobenzene	0.2 U	R	R
1,2-Dibromo-3-chloropropane (DBCP)	0.2 U	R	R
1,2-Dichlorobenzene	0.082 U	R	R
1,2-Dichloroethane	0.041 U	R	R
1,4-Dichlorobenzene	0.082 U	R	R
Benzene	0.041 U	0.018 J	R
Chlorobenzene	0.041 U	R	R
cis-1,2-Dichloroethene	0.041 U	0.03 J	R
Ethylbenzene	0.041 U	0.042 J	R
Isopropyl benzene	0.2 U	R	R
Methylene chloride	0.2 U	R	R
Styrene	0.041 U	R	R
Toluene	0.082 U	0.02 J	R
Trichloroethene	0.022 J	0.091 J	R
Vinyl chloride	0.082 U	R	R
Xylenes (total)	0.41 U	0.19 J	R
PCBs			
Total PCBs	0.25	2.24	0.277

SB22-01	5/18/2004 7-9 ft BGS	5/18/2004 9-9.5 ft BGS
VOCs		
1,1,2-Trichloroethane	0.062 U	R
1,1-Dichloroethene	0.062 U	R
1,2,4-Trichlorobenzene	0.31 U	R
1,2-Dibromo-3-chloropropane (DBCP)	0.31 U	R
1,2-Dichlorobenzene	0.12 U	R
1,2-Dichloroethane	0.062 U	R
1,4-Dichlorobenzene	0.12 U	R
Benzene	0.041 J	R
Chlorobenzene	0.062 U	R
cis-1,2-Dichloroethene	0.19	R
Ethylbenzene	0.23	R
Isopropyl benzene	0.12 J	R
Methylene chloride	0.31 U	R
Styrene	0.062 U	R
Toluene	0.055 J	R
Trichloroethene	0.098	R
Vinyl chloride	0.32 (E,I)	R
Xylenes (total)	1.2 (I)	R

SB19-03	11/14/2003 0-2 ft BGS	11/14/2003 7.5-9.5 ft BGS
VOCs		
1,1,2-Trichloroethane	0.083 U	0.21 U
1,1-Dichloroethene	0.083 U	0.21 U
1,2,4-Trichlorobenzene	0.41 U	1 U
1,2-Dibromo-3-chloropropane (DBCP)	0.41 U	1 U
1,2-Dichlorobenzene	0.17 U	0.42 U
1,2-Dichloroethane	0.083 U	0.21 U
1,4-Dichlorobenzene	0.17 U	0.42 U
Benzene	0.083 U	0.21 U
Chlorobenzene	0.083 U	0.21 U
cis-1,2-Dichloroethene	0.12	0.29
Ethylbenzene	0.083 U	0.21 U
Isopropyl benzene	0.41 U	1 U
Methylene chloride	0.41 U	1 U
Styrene	0.083 U	0.21 U
Toluene	0.17 U	0.42 U
Trichloroethene	2.2 (E)	6.8 (E,I)
Vinyl chloride	0.17 U	0.42 U
Xylenes (total)	0.83 U	2.1 U

SB22-05	5/18/2004 9-10 ft BGS	5/18/2004 11-13 ft BGS
VOCs		
1,1,2-Trichloroethane	0.06 U	2.8 U
1,1-Dichloroethene	0.06 U	2.8 U
1,2,4-Trichlorobenzene	0.3 U	14 U
1,2-Dibromo-3-chloropropane (DBCP)	0.3 U	14 U
1,2-Dichlorobenzene	0.12 U	5.7 U
1,2-Dichloroethane	0.06 U	2.8 U
1,4-Dichlorobenzene	0.12 U	5.7 U
Benzene	0.06 U	2.8 U
Chlorobenzene	0.06 U	2.8 U
cis-1,2-Dichloroethene	0.06 U	2.8 U
Ethylbenzene	0.06 U	16 (E,I)
Isopropyl benzene	0.3 U	20 (I)
Methylene chloride	0.3 U	14 U
Styrene	0.06 U	2.8 U
Toluene	0.12 U	0.89 J
Trichloroethene	0.06 U	2.8 U
Vinyl chloride	0.12 U	5.7 U
Xylenes (total)	0.6 U	180 (D,E,F,H,I,J)
PCBs		
Total PCBs	0.11 J	0.65 U

TP19-03	6/4/2003 1.5-11 ft BGS
VOCs	
1,1,2-Trichloroethane	0.054 U
1,1-Dichloroethene	0.054 U
1,2,4-Trichlorobenzene	0.27 U
1,2-Dibromo-3-chloropropane (DBCP)	0.27 U
1,2-Dichlorobenzene	0.11 U
1,2-Dichloroethane	0.054 U
1,4-Dichlorobenzene	0.11 U
Benzene	0.054 U
Chlorobenzene	0.054 U
cis-1,2-Dichloroethene	0.054 U
Ethylbenzene	0.18
Isopropyl benzene	0.27 U
Methylene chloride	0.27 U
Styrene	0.054 U
Toluene	0.11 U
Trichloroethene	0.054 U
Vinyl chloride	0.11 U
Xylenes (total)	0.65
PCBs	
Total PCBs	0.36 U

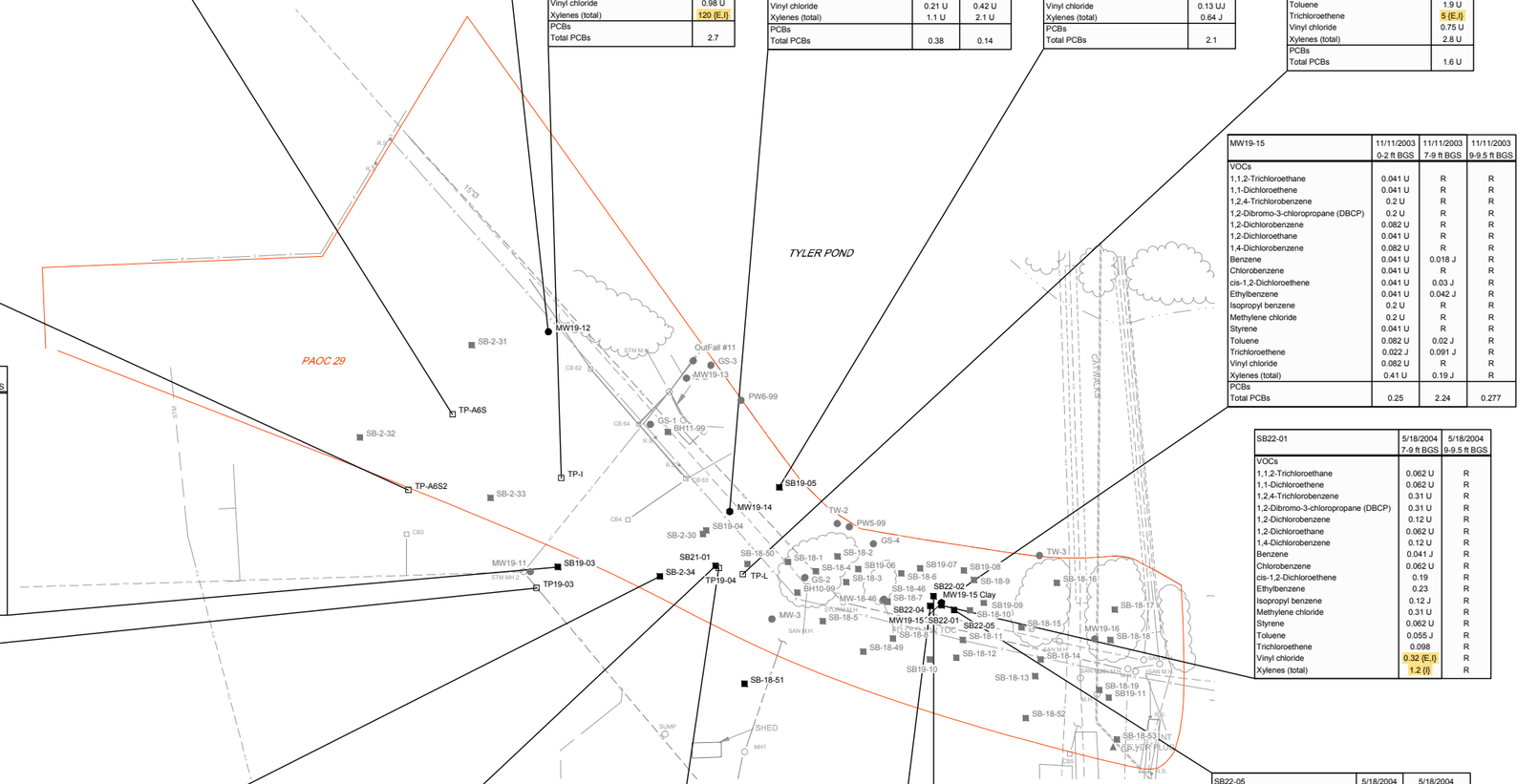
SB-2-34	12/1/1996 2.2-4.2 ft BGS
VOCs	
Chlorobenzene	3.3 (E,I)
cis-1,2-Dichloroethene	24 (E,I)
Ethylbenzene	0.5 U
Toluene	0.5 U
Trichloroethene	17 (E,I)
Xylenes (total)	0.5 U

SB21-01	11/12/2003 1-3 ft BGS
VOCs	
1,1,2-Trichloroethane	0.5 U
1,1-Dichloroethene	0.5 U
1,2,4-Trichlorobenzene	2.5 U
1,2-Dibromo-3-chloropropane (DBCP)	2.5 U
1,2-Dichlorobenzene	1 U
1,2-Dichloroethane	0.5 U
1,4-Dichlorobenzene	1 U
Benzene	0.5 U
Chlorobenzene	0.5 U
cis-1,2-Dichloroethene	9.9 (E)
Ethylbenzene	1.5 (I)
Isopropyl benzene	1.9 J
Methylene chloride	2.5 U
Styrene	0.5 U
Toluene	1.9
Trichloroethene	7.3 (E,I)
Vinyl chloride	1 U
Xylenes (total)	32 (E,I)
PCBs	
Total PCBs	5

TP19-04	6/3/2003 -
VOCs	
1,1,2-Trichloroethane	0.06 U
1,1-Dichloroethene	0.06 U
1,2,4-Trichlorobenzene	0.3 U
1,2-Dibromo-3-chloropropane (DBCP)	0.3 U
1,2-Dichlorobenzene	0.12 U
1,2-Dichloroethane	0.06 U
1,4-Dichlorobenzene	0.12 U
Benzene	0.06 U
Chlorobenzene	0.06 U
cis-1,2-Dichloroethene	0.78
Ethylbenzene	2.7 (E,I)
Isopropyl benzene	1.3
Methylene chloride	0.3 U
Styrene	0.06 U
Toluene	7.8 (I)
Trichloroethene	1.3 (E)
Vinyl chloride	0.12 U
Xylenes (total)	20.5 (E,I)
PCBs	
Total PCBs	0.4 U

SB22-04	5/18/2004 7-9 ft BGS
VOCs	
1,1,2-Trichloroethane	0.058 U
1,1-Dichloroethene	0.058 U
1,2,4-Trichlorobenzene	0.29 U
1,2-Dibromo-3-chloropropane (DBCP)	0.29 U
1,2-Dichlorobenzene	0.12 U
1,2-Dichloroethane	0.058 U
1,4-Dichlorobenzene	0.12 U
Benzene	0.058 U
Chlorobenzene	0.058 U
cis-1,2-Dichloroethene	0.088
Ethylbenzene	0.019 J
Isopropyl benzene	0.29 U
Methylene chloride	0.29 U
Styrene	0.058 U
Toluene	0.015 J
Trichloroethene	0.064
Vinyl chloride	0.12 U
Xylenes (total)	0.053 J
PCBs	
Total PCBs	1.3 J

SB22-02	5/18/2004 8-10 ft BGS
VOCs	
1,1,2-Trichloroethane	0.065 U
1,1-Dichloroethene	0.065 U
1,2,4-Trichlorobenzene	0.33 U
1,2-Dibromo-3-chloropropane (DBCP)	0.33 U
1,2-Dichlorobenzene	0.13 U
1,2-Dichloroethane	0.017 J
1,4-Dichlorobenzene	0.13 U
Benzene	0.065 U
Chlorobenzene	0.065 U
cis-1,2-Dichloroethene	0.065 U
Ethylbenzene	0.084
Isopropyl benzene	0.16 J
Methylene chloride	0.33 U
Styrene	0.065 U
Toluene	0.026 J
Trichloroethene	0.065
Vinyl chloride	0.13 U
Xylenes (total)	0.31 J
PCBs	
Total PCBs	2.2 J



LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- FORMER SLUDGE LINE
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES:

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

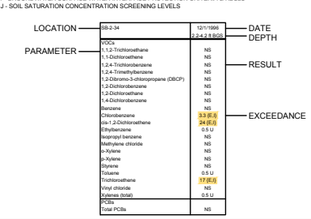
J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

R - THE DATA IS QUALIFIED AS UNUSABLE (NOTE: ANALYTE MAY OR MAY NOT BE PRESENT)

SOIL CRITERIA (NON-RESIDENTIAL)

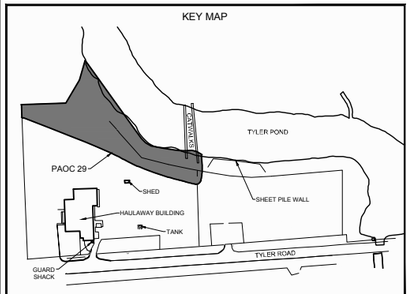
A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS



SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - VOCs AND PCBs PAOC 29

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

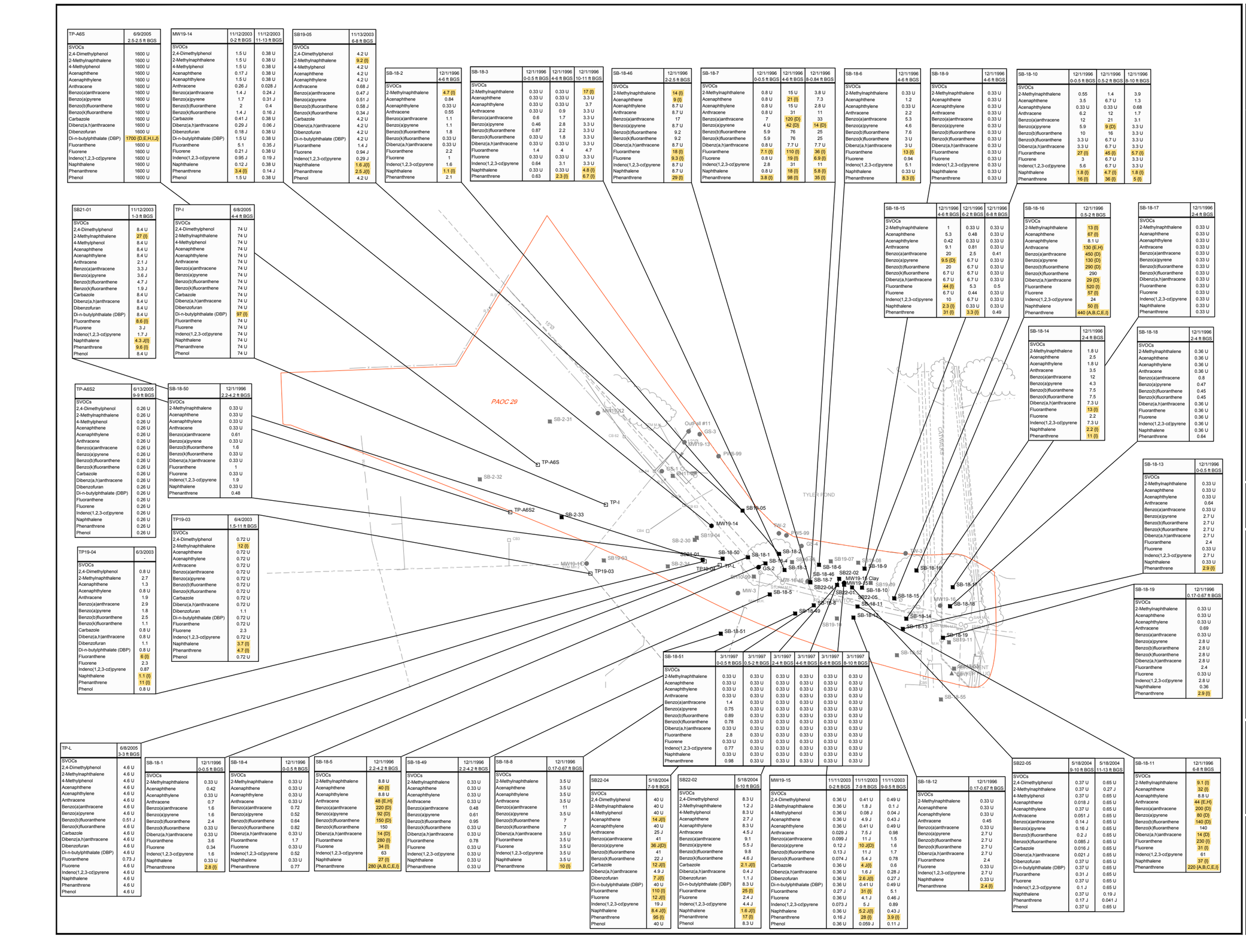
CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project No: 17303-T05	Report No: 008	Drawing No: FIGURE 3.7

17303-T05(008)GN-WI006 JUN 28/2011

DRAFT FOR REVIEW



DRAFT FOR REVIEW

N

0 25 50ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- FORMER SLUDGE LINE
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

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ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

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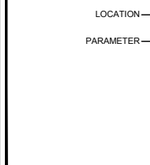
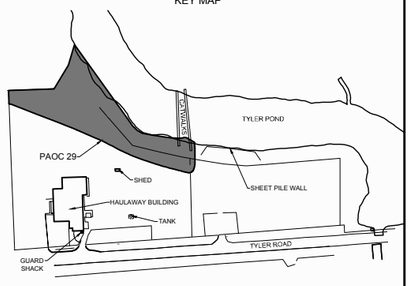


SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - INORGANICS
PAOC 29

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	OCTOBER 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.9

17303-T05(008)GN-WI007 OCT 12/2011

MW19-12	11/19/2003 0-2 ft BGS	11/19/2003 11.5-13.5 ft BGS
Inorganics		
Aluminum	4450	3320
Antimony	3.4	0.63 U
Arsenic	2.3	3.2
Barium	38.8	19.5
Cadmium	0.64	14.0 (E,I)
Chromium	17.2 (I)	11.0 (I)
Cobalt	2.2	2.8
Copper	6.3	5.6
Cyanide (total)	0.22 U	0.25 U
Iron	6000	6890
Lead	61.9	17.7
Magnesium	1110	1750
Manganese	173	49.8
Mercury	0.024 J	0.13 U
Nickel	6.3	8.0
Selenium	0.12 J	9.1 (E,I)
Silver	0.56 U	0.63 U
Thallium	0.047 J	0.051 J
Zinc	61.1	41.1

SB19-05	11/13/2003 6-8 ft BGS
Inorganics	
Aluminum	6780
Antimony	8.2 (E)
Arsenic	5.9 (E,I)
Barium	343
Cadmium	5.7
Chromium	65.0 (E,I)
Cobalt	4.9
Copper	29.7
Cyanide (total)	1.6 (I)
Iron	12000
Lead	683
Magnesium	5470
Manganese	218
Mercury	0.16 (I)
Nickel	14.2
Selenium	1.9 (I)
Silver	1.2 (I)
Thallium	0.23
Zinc	196

SB-18-6	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS
Inorganics				
Lead	560	980 (D,E)	27000 (D,E,I)	1300 (D,E)

SB-18-7	12/12/1996 0-0.5 ft BGS	12/12/1996 0.5-2 ft BGS	12/12/1996 2-4 ft BGS	12/12/1996 4-6 ft BGS	12/12/1996 6-8 ft BGS	12/12/1996 8-10 ft BGS
Inorganics						
Lead	1800 (D,E)	1100 (D,E)	680	3000 (D,E)	8500 (D,E,I)	500

SB-18-3	12/11/1996 10-11 ft BGS	12/12/1996 0-0.5 ft BGS	12/12/1996 0.5-2 ft BGS	12/12/1996 2-4 ft BGS	12/12/1996 4-6 ft BGS	12/12/1996 6-8 ft BGS	12/12/1996 8-10 ft BGS
Inorganics							
Lead	3200 (D,E)	190	680	2200 (D,E)	240	450	1600 (D,E)

SB-18-2	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS
Inorganics				
Lead	5300 (D,E)	7300 (D,E)	670	1400 (D,E)

SB-18-4	12/11/1996 0-0.5 ft BGS	12/11/1996 0.5-2 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-6 ft BGS	12/11/1996 6-8 ft BGS	12/11/1996 8-10 ft BGS	12/11/1996 10-11 ft BGS
Inorganics							
Lead	65	2000 (D,E)	1800 (D,E)	2000 (D,E)	1700 (D,E)	710 (E)	79

SB22-04	5/18/2004 7-9 ft BGS
Inorganics	
Aluminum	6720
Antimony	10.9 J(E)
Arsenic	8.1 J(E,I)
Barium	1610 (E,I)
Cadmium	46.3 J(E,I)
Chromium	72.8 J(E,I)
Cobalt	6.6
Copper	64.4 J
Cyanide (total)	2.0 (I)
Iron	12600 (E)
Lead	1240 (D,E)
Magnesium	8370 J
Manganese	283
Mercury	0.079 J
Nickel	16.5
Selenium	13.2 J(E,I)
Silver	0.67
Thallium	0.20
Zinc	990 (I)

SB22-02	5/18/2004 8-10 ft BGS
Inorganics	
Aluminum	6200
Antimony	30.5 J(E)
Arsenic	13.6 J(E,I)
Barium	746
Cadmium	83.1 J(E,I)
Chromium	66.7 J(E,I)
Cobalt	10.2 (E,I)
Copper	63.4 J
Cyanide (total)	2.3 (I)
Iron	23600 (E)
Lead	2500 (D,E)
Magnesium	6360 J
Manganese	342
Mercury	0.067 J
Nickel	20.3
Selenium	22.9 J(E,I)
Silver	0.83
Thallium	0.31
Zinc	9030 (E,I)

MW19-15	11/11/2003 0-2 ft BGS	11/11/2003 7-9 ft BGS	11/11/2003 9-9.5 ft BGS
Inorganics			
Aluminum	5740	5010	2730
Antimony	0.37 J	54.5 J(E)	16.5 J(E)
Arsenic	5.3	36.2 (E,I)	6.2 (E,I)
Barium	46.4	538	344
Cadmium	0.45	1170 (E,I)	9.7 (E,I)
Chromium	10.8 (I)	41.5 (E,I)	82.4 (E,I)
Cobalt	6.9 (E,I)	9.9 (E,I)	4.4
Copper	16.7	97.4	27.8
Cyanide (total)	0.22 U	7.7 (E,I)	9.1 (E,I)
Iron	14400 (E)	17700 (E)	8000
Lead	18.0	3500 (D,E)	915 (D,E)
Magnesium	15200	8830	5810
Manganese	300	283	249
Mercury	0.024 J	0.096 J	0.065 J
Nickel	18.1	19.5	9.2
Selenium	0.22 U	421 (E,I)	1.9 (I)
Silver	0.54 U	1.0	0.35 J
Thallium	0.34	0.12	0.078 J
Zinc	45.1	652 (I)	744 (I)

SB-18-9	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS
Inorganics				
Lead	9200 (D,E,I)	2900 (D,E)	170000 (D,E,G,I)	460

SB22-05	5/18/2004 9-10 ft BGS	5/18/2004 11-13 ft BGS
Inorganics		
Aluminum	4660	4880
Antimony	2.5 J	0.99 UJ
Arsenic	4.2 J	8.7 J(E,I)
Barium	119	63.7
Cadmium	9.7 J(E,I)	0.39 J
Chromium	31.6 J(E,I)	12.3 J(I)
Cobalt	4.4	3.7
Copper	17.6 J	9.2 J
Cyanide (total)	0.43 (I)	0.40 U
Iron	8250	9600
Lead	426	11.0
Magnesium	6900 J	1600 J
Manganese	2570 (E,G,I)	82.6
Mercury	0.040 J	0.041 J
Nickel	10.5	8.9
Selenium	1.9 J(I)	2.2 J(I)
Silver	0.15 J	0.99 U
Thallium	0.13	0.081 J
Zinc	2060 (I)	41.8

SB-18-11	12/12/1996 0-0.5 ft BGS	12/12/1996 0.5-2 ft BGS	12/12/1996 2-4 ft BGS	12/12/1996 4-6 ft BGS	12/12/1996 6-8 ft BGS	12/12/1996 8-10 ft BGS	12/12/1996 10-11 ft BGS
Inorganics							
Lead	4500 (D,E)	4900 (D,E)	1500 (D,E)	1700 (D,E)	3100 (D,E)	8	2

SB-18-16	12/11/1996 0-0.5 ft BGS	12/11/1996 2-4 ft BGS	12/11/1996 4-5.5 ft BGS	12/11/1996 6-2 ft BGS
Inorganics				
Lead	1100 (D,E)	140	1400 (D,E)	1500 (D,E)

SB-18-15	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS	12/10/1996 6-8 ft BGS	12/10/1996 8-10 ft BGS
Inorganics						
Lead	6100 (D,E)	2100 (D,E)	3500 (D,E)	5200 (D,E)	2300 (D,E)	1200 (D,E)

SB-18-17	12/11/1996 0-0.5 ft BGS	12/11/1996 2-3 ft BGS	12/11/1996 6-2 ft BGS
Inorganics			
Lead	86	4	12

SB-18-18	12/12/1996 0-0.5 ft BGS	12/12/1996 0.5-2 ft BGS	12/12/1996 2-4 ft BGS	12/12/1996 4-6 ft BGS	12/12/1996 6-8 ft BGS	12/12/1996 8-9 ft BGS
Inorganics						
Lead	280	720 (E)	29	220	110	4

SB-18-14	12/12/1996 0-0.5 ft BGS	12/12/1996 0.5-2 ft BGS	12/12/1996 2-4 ft BGS	12/12/1996 4-6 ft BGS	12/12/1996 6-8 ft BGS	12/12/1996 8-10 ft BGS
Inorganics						
Lead	3300 (D,E)	10000 (D,E,I)	1200 (D,E)	1200 (D,E)	480	670

SB-18-53	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	26	15	5	8	2	3	2

SB-18-13	12/9/1996 0.17-0.67 ft BGS	12/9/1996 0.67-2.2 ft BGS	12/9/1996 2.2-4.2 ft BGS	12/9/1996 4.2-6.2 ft BGS	12/9/1996 6.2-8.2 ft BGS	12/9/1996 8.2-10.2 ft BGS	12/9/1996 10.2-11.5 ft BGS
Inorganics							
Lead	43	12	4	4	4	3	3

SB-18-19	12/9/1996 0.17-0.67 ft BGS	12/9/1996 0.67-2.2 ft BGS	12/9/1996 2.2-4.2 ft BGS	12/9/1996 4.2-6.2 ft BGS	12/9/1996 6.2-8.2 ft BGS	12/9/1996 8.2-10.2 ft BGS	12/9/1996 10.2-11.5 ft BGS
Inorganics							
Lead	54	2200 (D,E)	9	38	5	7	5

SB-18-12	12/9/1996 0.17-0.67 ft BGS	12/9/1996 0.67-2.2 ft BGS	12/9/1996 2.2-4.2 ft BGS	12/9/1996 4.2-6.2 ft BGS	12/9/1996 6.2-8.2 ft BGS	12/9/1996 8.2-10.2 ft BGS	12/9/1996 10.2-11.5 ft BGS
Inorganics							
Lead	23	56	230	9	4	5	2

SB-18-55	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	52	47	14	7	6	7	3

SB-18-52	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	82	5	6	8	23	2	2

SB-18-51	3/22/1997 0-0.5 ft BGS	3/22/1997 0.5-2 ft BGS	3/22/1997 2-4 ft BGS	3/22/1997 4-6 ft BGS	3/22/1997 6-8 ft BGS	3/22/1997 8-10 ft BGS	3/22/1997 10-12 ft BGS
Inorganics							
Lead	520	260	8	5	5	32	8

SB19-10	12/10/1996 0-0.5 ft BGS	12/10/1996 0.5-2 ft BGS	12/10/1996 2-4 ft BGS	12/10/1996 4-6 ft BGS	12/10/1996 6-8 ft BGS	12/10/1996 8-10 ft BGS
Inorganics						
Lead	2000 (D,E)	800 (E)	1400 (D,E)	52000 (D,E,G,I)	170	2200 (D,E)

SB-18-49	12/18/1996 0.17-0.67 ft BGS	12/18/1996 0.67-2.2 ft BGS	12/18/1996 2.2-4.2 ft BGS	12/18/1996 4.2-6.2 ft BGS	12/18/1996 6.2-8.2 ft BGS	12/18/1996 8.2-10.2 ft BGS	12/18/1996 10.2-11.5 ft BGS
Inorganics							
Lead	27	94	130	4	8	3	3

SB-18-8	12/9/1996 0.17-0.67 ft BGS	12/9/1996 0.67-2.2 ft BGS	12/9/1996 2.2-4.2 ft BGS	12/9/1996 4.2-6.2 ft BGS	12/9/1996 6.2-8.2 ft BGS	12/9/1996 8.2-10.2 ft BGS	12/9/1996 10.2-12.2 ft BGS
Inorganics							
Lead	11	720 (E)	120	3	6	3	3

SB-18-1	12/9/1996 0-0.5 ft BGS	12/9/1996 0.5-2 ft BGS	12/9/1996 2-4 ft BGS	12/9/1996 4-6 ft BGS	12/9/1996 6-8 ft BGS	12/9/1996 8-10 ft BGS	12/9/1996 10-12 ft BGS	12/9/1996 12-13 ft BGS
Inorganics								
Lead	870 (E)	2900 (D,E)	820 (E)	1800 (D,E)	4	3000 (D,E)	300	810 (E)

SB-18-5	12/12/1996 0.17-0.67 ft BGS	12/12/1996 0.67-2.2 ft BGS	12/12/1996 2.2-4.2 ft BGS	12/12/1996 4.2-6.2 ft BGS	12/12/1996 6.2-8.2 ft BGS	12/12/1996 8.2-10.2 ft BGS
Inorganics						
Lead	97	710 (E)	8100 (D,E,I)	2300 (D,E)	140	16

SB-50	12/18/1996 0.17-0.67 ft BGS	12/18/1996 0.67-2.2 ft BGS	12/18/1996 2.2-4.2 ft BGS	12/18/1996 4.2-6.2 ft BGS	12/18/1996 6.2-8.2 ft BGS	12/18/1996 8.2-10.2 ft BGS	12/18/1996 10.2-11.5 ft BGS
Inorganics							
Lead	65	52	11000 (D,E,I)	12000 (D,E,I)	6600 (D,E)	10000 (D,E,I)	120

TP-L	6/8/2005 3-3 ft BGS
Inorganics	
Antimony	42.7 (E)
Arsenic	10.7 (E,I)
Barium	985
Cadmium	153 (E,I)
Chromium	16600 (D,E,G,I)
Cobalt	104 (E,I)
Copper	108
Lead	69200 (D,E,G,I)
Manganese	270
Mercury	0.17 (I)
Nickel	14.5
Selenium	42.2 (E,I)
Silver	1.5 (I)
Thallium	0.096
Zinc	8570 (E,I)

SB-2-31	9/16/1996 2-4 ft BGS	9/16/1996 4-6 ft BGS	12/16/1996 0.17-0.67 ft BGS
Inorganics			
Lead	220	96000 (D,E,G,I)	5

TP-A6S	6/9/2005 2.5-2.5 ft BGS
Inorganics	
Antimony	2.2
Arsenic	5.9 (E,I)
Barium	214
Cadmium	29.6 (E,I)
Chromium	36.8 (E,I)
Cobalt	2.4
Copper	201 (I)
Lead	444
Manganese	120
Mercury	0.13
Nickel	13.1
Selenium	1.3 (I)
Silver	0.74
Thallium	0.64
Zinc	963 (I)

TP-A6S2	6/13/2005 9-9 ft BGS
Inorganics	
Antimony	0.16 U
Arsenic	0.57 J
Barium	25.7
Cadmium	0.080 U
Chromium	13.8 (I)
Cobalt	3.7
Copper	19.7
Lead	28.7
Manganese	51.3 J
Mercury	0.0098 J
Nickel	10.5
Selenium	0.18
Silver	0.051 J
Thallium	0.21
Zinc	46.5

TP-I	6/8/2005 4-4 ft BGS
Inorganics	
Antimony	24.8 (E)
Arsenic	1.1
Barium	129
Cadmium	45.8 (E,I)
Chromium	235 (E,I)
Cobalt	6.4
Copper	178 (I)
Lead	1560 (D,E)
Manganese	243
Mercury	0.013
Nickel	50.3
Selenium	1.5 (I)
Silver	0.66
Thallium	0.016
Zinc	1610 (I)

SB-2-32	9/16/1996 4-6 ft BGS	9/16/1996 6-8 ft BGS	12/16/1996 0.17-0.67 ft BGS	12/16/1996 0.67-2.2 ft BGS
Inorganics				
Lead	940 (D,E)	11000 (D,E,I)	450	740 (E)

SB-2-33	9/16/1996 6-8 ft BGS	9/16/1996 8-10 ft BGS	12/16/1996 0.67-2.2 ft BGS	12/16/1996 2.2-4.2 ft BGS	12/17/1996 0.17-0.67 ft BGS
Inorganics					
Lead	1800 (D,E)	31000 (D,E,I)	110	77	140

MW19-14	11/12/2003 0-2 ft BGS	11/12/2003 11-13 ft BGS
Inorganics		
Aluminum	4660	6000
Antimony	18.3 (E)	307 (E,I)
Arsenic	6.7 (E,I)	90.7 (D,E,I)
Barium	296	5070 (E,I)
Cadmium	9.3 (E,I)	171 (E,I)
Chromium	30.6 (E,I)	222 (E,I)
Cobalt	5.4	33.5 (E,I)
Copper	158	9310 (E,I)
Cyanide (total)	0.23 U	0.21 J
Iron	16200 (E)	204000 (E)
Lead	1400 (D,E)	19400 (D,E,I)
Magnesium	15100	5220
Manganese	359	1950 (E,G,I)
Mercury	0.051 J	0.36 (I)
Nickel	26.0	278 (E,I)
Selenium	0.78 (I)	9.6 (E,I)
Silver	0.74	6.6 (I)
Thallium	0.076 J	1.2 U
Zinc	419 (I)	4770 (I)

SB-2-30	9/16/1996 0-2 ft BGS	9/16/1996 2-4 ft BGS
Inorganics		
Lead	13	2300 (D,E)

SB-2-34	9/16/1996 8-10 ft BGS	12/16/1996 2.2-4.2 ft BGS	12/16/1996 4.2-6.2 ft BGS	12/18/1996 0.67-2.2 ft BGS	12/24/1996 0.17-0.67 ft BGS
Inorganics					
Lead	120	4	8	160	6

TP19-03	6/4/2003 1.5-11 ft BGS
Inorganics	
Aluminum	2180
Antimony	4.96 (E)
Arsenic	1.8 J
Barium	7.79 J
Cadmium	0.146 J
Chromium	16.5 (I)
Cobalt	1.93
Copper	4.95 J
Iron	4730
Lead	5.16
Magnesium	1060
Manganese	50.7
Mercury	0.11 U
Nickel	5.16
Selenium	0.22 U
Silver	0.54 UJ
Thallium	3.88 (E)
Zinc	16.5

SB21-01	11/12/2003 1-3 ft BGS
Inorganics	
Aluminum	4460
Antimony	573 (E,I)
Arsenic	20.3 (E,I)
Barium	4020 (E,I)
Cadmium	244 (E,I)
Chromium	572 (E,G,I)
Cobalt	21.6 (E,I)
Copper	188 (I)
Cyanide (total)	2.3 (I)
Iron	32200 (E)
Lead	24600 (D,E,I)
Magnesium	5390
Manganese	408
Mercury	0.17 (I)
Nickel	41.8
Selenium	60.3 (E,I)
Silver	7.4 (I)
Thallium	2.5 U
Zinc	1660 (I)

TP19-04	6/3/2003 -
Inorganics	
Aluminum	4040
Antimony	402 (E,I)
Arsenic	9.46 J(E,I)
Barium	823 J
Cadmium	15.2 J(E,I)
Chromium	226 (E,I)
Cobalt	10.5 (E,I)
Copper	231 J(I)
Iron	31000 (E)
Lead	12000 (D,E,I)
Magnesium	8140
Manganese	823 (E,I)
Mercury	0.12 U
Nickel	59.9
Selenium	1.33 J(I)
Silver	1.3 J(I)
Thallium	19.1 (E,I)
Zinc	2350 (I)

PAOC 29

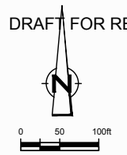
PAOC 23

TYLER POND

SHED

MW19-12
SB-2-31
TP-A6S
SB-2-32
TP-A6S2
TP-I
SB-2-33
MW19-14
SB-2-30
SB19-04
MW19-11
SB19-03
SB21-01
SB-2-34
TP19-03
TP19-04
TP-L
MW19-13
OutFall #11
GS-3
PW6-99
GS-1
BH11-99
SB19-05
TW-2
PW5-99
GS-4
GS-2
BH10-99
SB19-06
SB19-07
SB19-08
SB-18-1
SB-18-2
SB-18-3
SB-18-4
SB-18-50
SB-18-46
SB-18-7
SB22-04
SB22-02
MW19-15 Clay
MW19-15
SB19-09
SB-18-10
MW-18-46
SB22-01
SB22-05
MW-3
SB-18-5
SB-18-8
SB-18-49
SB19-10
SB-18-11
SB-18-12
SB-18-51
SB-18-9
SB-18-16
SB-18-17
SB-18-18
SB-18-14
SB-18-13
SB-18-19
SB19-11
SB-18-52
SB-18-53
GP-7
SB-18-55
MW19-16
TW-3
SB-18-15
SHEET PILE WALL
HAULAWAY BUILDING
TANK
GUARD SHACK
TYLER ROAD

DRAFT FOR REVIEW

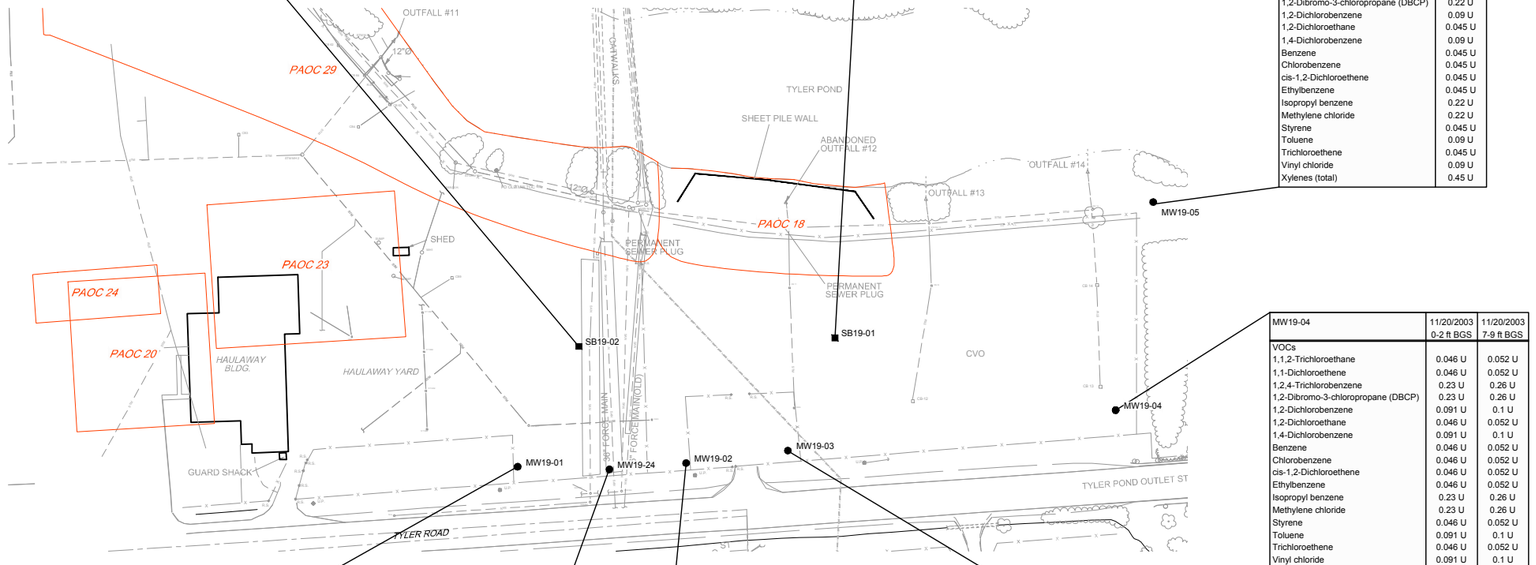


SB19-02	11/13/2003 0-2 ft BGS	11/13/2003 8.5-10.5 ft BGS
VOCs		
1,1,2-Trichloroethane	0.045 U	0.054 U
1,1-Dichloroethene	0.045 U	0.054 U
1,2,4-Trichlorobenzene	0.23 U	0.27 U
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U	0.27 U
1,2-Dichlorobenzene	0.091 U	0.11 U
1,2-Dichloroethane	0.045 U	0.054 U
1,4-Dichlorobenzene	0.091 U	0.11 U
Benzene	0.045 U	0.054 U
Chlorobenzene	0.045 U	0.054 U
cis-1,2-Dichloroethene	0.045 U	0.054 U
Ethylbenzene	0.015 J	0.054 U
Isopropyl benzene	0.23 U	0.27 U
Methylene chloride	0.23 U	0.27 U
Styrene	0.045 U	0.054 U
Toluene	0.055 J	0.11 U
Trichloroethene	0.045 U	0.054 U
Vinyl chloride	0.091 U	0.11 U
Xylenes (total)	0.13 J	0.54 U

SB19-01	11/13/2003 0-2 ft BGS	11/13/2003 10-12 ft BGS
VOCs		
1,1,2-Trichloroethane	0.048 U/0.047 U	0.05 U
1,1-Dichloroethene	0.048 U/0.047 U	0.05 U
1,2,4-Trichlorobenzene	0.23 U/0.24 U	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U/0.24 U	0.25 U
1,2-Dichlorobenzene	0.093 U/0.097 U	0.099 U
1,2-Dichloroethane	0.047 U/0.048 U	0.05 U
1,4-Dichlorobenzene	0.093 U/0.097 U	0.099 U
Benzene	0.048 U/0.047 U	0.05 U
Chlorobenzene	0.048 U/0.047 U	0.05 U
cis-1,2-Dichloroethene	0.048 U/0.047 U	0.05 U
Ethylbenzene	0.048 U/0.047 U	0.05 U
Isopropyl benzene	0.24 U/0.23 U	0.25 U
Methylene chloride	0.23 U/0.24 U	0.25 U
Styrene	0.047 U/0.048 U	0.05 U
Toluene	0.093 U/0.097 U	0.099 U
Trichloroethene	0.048 U/0.047 U	0.05 U
Vinyl chloride	0.093 U/0.097 U	0.099 U
Xylenes (total)	0.47 U/0.48 U	0.5 U

MW19-05	11/11/2003 0-2 ft BGS
VOCs	
1,1,2-Trichloroethane	0.045 U
1,1-Dichloroethene	0.045 U
1,2,4-Trichlorobenzene	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	0.22 U
1,2-Dichlorobenzene	0.09 U
1,2-Dichloroethane	0.045 U
1,4-Dichlorobenzene	0.09 U
Benzene	0.045 U
Chlorobenzene	0.045 U
cis-1,2-Dichloroethene	0.045 U
Ethylbenzene	0.045 U
Isopropyl benzene	0.22 U
Methylene chloride	0.22 U
Styrene	0.045 U
Toluene	0.09 U
Trichloroethene	0.045 U
Vinyl chloride	0.09 U
Xylenes (total)	0.45 U

MW19-04	11/20/2003 0-2 ft BGS	11/20/2003 7-9 ft BGS
VOCs		
1,1,2-Trichloroethane	0.046 U	0.052 U
1,1-Dichloroethene	0.046 U	0.052 U
1,2,4-Trichlorobenzene	0.23 U	0.26 U
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U	0.26 U
1,2-Dichlorobenzene	0.091 U	0.1 U
1,2-Dichloroethane	0.046 U	0.052 U
1,4-Dichlorobenzene	0.091 U	0.1 U
Benzene	0.046 U	0.052 U
Chlorobenzene	0.046 U	0.052 U
cis-1,2-Dichloroethene	0.046 U	0.052 U
Ethylbenzene	0.046 U	0.052 U
Isopropyl benzene	0.23 U	0.26 U
Methylene chloride	0.23 U	0.26 U
Styrene	0.046 U	0.052 U
Toluene	0.091 U	0.1 U
Trichloroethene	0.046 U	0.052 U
Vinyl chloride	0.091 U	0.1 U
Xylenes (total)	0.46 U	0.52 U



MW19-01	11/20/2003 0-2 ft BGS	11/20/2003 12.5-14.5 ft BGS
VOCs		
1,1,2-Trichloroethane	0.05 U	0.051 U
1,1-Dichloroethene	0.05 U	0.051 U
1,2,4-Trichlorobenzene	0.25 U	0.26 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U	0.26 U
1,2-Dichlorobenzene	0.099 U	0.1 U
1,2-Dichloroethane	0.05 U	0.051 U
1,4-Dichlorobenzene	0.099 U	0.1 U
Benzene	0.05 U	0.051 U
Chlorobenzene	0.05 U	0.051 U
cis-1,2-Dichloroethene	0.05 U	0.051 U
Ethylbenzene	0.05 U	0.051 U
Isopropyl benzene	0.25 U	0.26 U
Methylene chloride	0.25 U	0.26 U
Styrene	0.05 U	0.051 U
Toluene	0.018 J	0.1 U
Trichloroethene	0.05 U	0.051 U
Vinyl chloride	0.099 U	0.1 U
Xylenes (total)	0.06 J	0.51 U

MW19-24	5/18/2004 12-13 ft BGS
VOCs	
1,1,2-Trichloroethane	0.05 U
1,1-Dichloroethene	0.05 U
1,2,4-Trichlorobenzene	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U
1,2-Dichlorobenzene	0.1 U
1,2-Dichloroethane	0.05 U
1,4-Dichlorobenzene	0.1 U
Benzene	0.05 U
Chlorobenzene	0.05 U
cis-1,2-Dichloroethene	0.05 U
Ethylbenzene	0.05 U
Isopropyl benzene	0.25 U
Methylene chloride	0.25 U
Styrene	0.05 U
Toluene	0.1 U
Trichloroethene	0.05 U
Vinyl chloride	0.1 U
Xylenes (total)	0.5 U

MW19-02	11/20/2003 0-2 ft BGS	11/20/2003 12-14 ft BGS
VOCs		
1,1,2-Trichloroethane	0.048 U	0.044 UJ
1,1-Dichloroethene	0.048 U	0.044 UJ
1,2,4-Trichlorobenzene	0.24 U	0.22 UJ
1,2-Dibromo-3-chloropropane (DBCP)	0.24 U	0.22 UJ
1,2-Dichlorobenzene	0.095 U	0.089 UJ
1,2-Dichloroethane	0.048 U	0.044 UJ
1,4-Dichlorobenzene	0.095 U	0.089 UJ
Benzene	0.048 U	0.044 UJ
Chlorobenzene	0.048 U	0.044 UJ
cis-1,2-Dichloroethene	0.048 U	0.85 J
Ethylbenzene	0.048 U	0.044 UJ
Isopropyl benzene	0.24 U	0.22 UJ
Methylene chloride	0.24 U	0.22 UJ
Styrene	0.048 U	0.044 UJ
Toluene	0.095 U	0.089 UJ
Trichloroethene	0.048 U	0.044 UJ
Vinyl chloride	0.095 U	0.089 UJ
Xylenes (total)	0.48 U	0.44 UJ

MW19-03	11/20/2003 0-2 ft BGS	11/20/2003 11-13 ft BGS
VOCs		
1,1,2-Trichloroethane	0.05 U/0.048 U	0.047 U
1,1-Dichloroethene	0.05 U/0.048 U	0.047 U
1,2,4-Trichlorobenzene	0.24 U/0.25 U	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	0.25 U/0.24 U	0.23 U
1,2-Dichlorobenzene	0.1 U/0.096 U	0.094 U
1,2-Dichloroethane	0.05 U/0.048 U	0.047 U
1,4-Dichlorobenzene	0.096 U/0.1 U	0.094 U
Benzene	0.05 U/0.048 U	0.047 U
Chlorobenzene	0.048 U/0.05 U	0.047 U
cis-1,2-Dichloroethene	0.05 U/0.048 U	0.047 U
Ethylbenzene	0.05 U/0.048 U	0.047 U
Isopropyl benzene	0.24 U/0.25 U	0.23 U
Methylene chloride	0.24 U/0.25 U	0.23 U
Styrene	0.048 U/0.05 U	0.047 U
Toluene	0.096 U/0.1 U	0.094 U
Trichloroethene	0.048 U/0.05 U	0.047 U
Vinyl chloride	0.096 U/0.1 U	0.094 U
Xylenes (total)	0.48 U/0.5 U	0.47 U

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- FORMER SLUDGE LINE
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/kg.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

SOIL CRITERIA (NON-RESIDENTIAL)

A - FINITE VSIC FOR 2 METER SOURCE THICKNESS
B - FINITE VSIC FOR 5 METER SOURCE THICKNESS
C - INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA (VSIC) & RBSLS
D - DIRECT CONTACT CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER PROTECTION CRITERIA & RBSLS
F - SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - PARTICULATE SOIL INHALATION CRITERIA & RBSLS
H - GROUNDWATER CONTACT PROTECTION CRITERIA & RBSLS
I - GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA & RBSLS
J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

LOCATION → TP19-05	6/4/2003	6/5/2003 ← DATE
	-	0-11 ft BGS ← DEPTH
VOCs		
1,1,2-Trichloroethane	0.064 U	0.055 U
1,1-Dichloroethene	0.064 U	0.055 U
1,2,4-Trichlorobenzene	0.32 U	0.28 U
1,2-Dibromo-3-chloropropane (DBCP)	0.32 U	0.28 U
1,2-Dichlorobenzene	0.13 U	0.11 U
1,2-Dichloroethane	0.064 U	0.055 U
1,4-Dichlorobenzene	0.13 U	0.11 U
Benzene	0.064 U	0.055 U
Chlorobenzene	0.064 U	0.055 U
cis-1,2-Dichloroethene	0.064 U	0.055 U
Ethylbenzene	0.064 U	0.055 U
Isopropyl benzene	0.32 U	0.28 U
Methylene chloride	0.32 U	0.28 U
Styrene	0.064 U	0.055 U
Toluene	0.13 U	0.11 U
Trichloroethene	1.4 (E)	~~0.055 U~~ ← EXCEEDANCE
Vinyl chloride	0.13 U	0.11 U
Xylenes (total)	0.19 U	0.17 U
PCBs		
Total PCBs	0.42 U	0.37 U

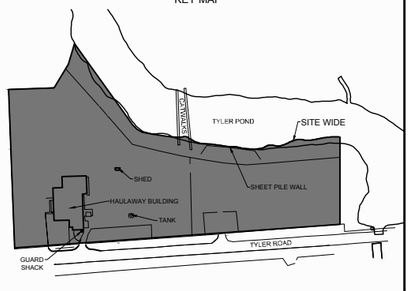
← RESULT

← PARAMETER

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



SOIL DATA SUMMARY - VOCs AND PCBs SITE WIDE

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project Nº: 17303-T05	Report Nº: 008	Drawing Nº: FIGURE 3.10

17303-T05(008)GN-WI009 JUL 25/2011

GS-3	4/3/2003	6/27/2003	12/2/2003	4/1/2004	7/1/2004	9/23/2004	12/10/2004	3/11/2005	6/23/2005	10/6/2005	12/14/2005	3/10/2006	6/27/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/7/2007	12/7/2007	3/27/2008	6/19/2008	9/25/2008	12/10/2008	3/27/2009	4/13/2010	10/26/2010
VOCs																										
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 UJ	0.012 U	0.01 U	0.001 U	0.02 U	0.004 UJ	0.0025 U	0.0025 U	0.001 U	0.001 U
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.000776 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
1,2,4-Trimethylbenzene	0.001 U	0.001 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.02 U	0.012 U	0.01 U	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	0.001 U	0.001 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.02 U	0.012 U	0.01 U	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.025 U	0.025 U	0.025 U	0.025 U	1.2 U	1.7 U	0.38 U	1.3 U	0.025 U	3.1 U	1.3 U	0.0099 J	0.83 U	0.025 U	0.56 U	0.71 U	0.5 U	0.31 U	0.25 U	0.025 U	0.5 U	0.1 U	0.062 U	0.062 U	0.025 U	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U	0.05 U	0.05 U	2.5 U	3.3 U	0.77 U	2.5 U	0.05 U	6.3 U	2.5 U	0.072 UJ	1.7 U	0.05 U	1.1 U	1.4 U	1 UJ	0.62 U	0.5 U	0.05 U	1 U	0.2 U	0.12 U	0.12 U	0.05 U	0.05 U
Acetone	0.025 U	0.025 U	0.025 U	0.025 U	0.053 J	1.7 U	0.38 U	1.3 U	0.025 U	0.6 J	1.3 U	0.036 U	0.83 U	0.025 U	0.56 U	0.71 U	0.5 U	0.31 U	0.25 U	0.025 U	0.5 U	0.1 U	0.062 U	0.062 U	0.025 U	0.025 U
Benzene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.0009 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0075 J	0.001 U	0.0007 J
Carbon tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.00028 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.014	0.003	0.0025	0.00068 J	0.13 [E,H]	0.19 [E,H]	0.081 [E,H]	0.068	0.18 [E,H]	0.14 [E,H]	0.16 [E,H]	0.0092 J	0.006 [E,H]	0.001	0.058	0.064	0.067	0.049	0.034	0.0046	0.048	0.016	0.0062	0.01	0.0023	0.0028
Ethylbenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Isopropyl benzene	0.005 U	0.005 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U	0.005 U	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U
Methyl tert butyl ether (MTBE)	NS	NS	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U	0.005 U	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.00054 J	0.005 U	0.005 U
Methylene chloride	0.005 U	0.005 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U	0.005 U	0.017 [JE,H]	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U
m-Xylene	NS	NS	NS	NS	NS	NS	NS	0.1 U	0.002 U	0.25 U	0.1 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	0.005 U	0.005 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
o-Xylene	NS	NS	NS	NS	NS	NS	NS	0.05 U	0.00022 J	0.13 U	0.05 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Toluene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.00033 J	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.0088	0.13 U	0.006 J	0.0003 J	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.00069 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	NS	NS	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U
Vinyl chloride	0.033 [D,E,H]	0.007 [E,H]	0.013 [E,H]	0.0018	1.2 [C,D,E,H,I]	1.5 [C,D,E,H,I]	0.45 [D,E,H]	0.58 [D,E,H]	2.4 [C,D,E,H,I]	2 [C,D,E,H,I]	1.2 [C,D,E,H,I]	0.037 [D,E,H]	0.99 [D,E,H]	0.0011	0.63 [D,E,H]	0.62 [D,E,H]	0.61 [D,E,H]	0.46 [D,E,H]	0.3 [D,E,H]	0.025 [D,E,H]	0.51 [D,E,H]	0.14 [D,E,H]	0.061 [D,E,H]	0.09 [D,E,H]	0.034 [D,E,H]	0.017 [D,E,H]
Xylenes (total)	0.003 U	0.0003 U	0.002 U	0.002 U	0.1 U	0.133 U	0.031 U	0.15 U	0.00022 J	0.38 U	0.15 U	0.0029 UJ	0.067 U	0.002 UJ	0.044 U	0.057 U	0.04 U	0.025 U	0.02 U	0.002 U	0.04 U	0.008 U	0.005 U	0.005 U	0.002 U	0.002 U
PCBs																										
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000093	0.0001 U	0.0001 U	0.0001 U	NS	NS	NS

MW19-12	12/1/2003	3/9/2006	6/30/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/6/2007	12/6/2007	3/27/2008	6/19/2008	9/24/2008
VOCs												
1,1,2,2-Tetrachloroethane	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 UJ	0.067 U	0.091 U	0.056 U	0.062 U	0.1 UJ
1,1,2-Trichloroethane	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
1,1-Dichloroethene	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
1,2,4-Trimethylbenzene	NS	NS	NS	NS	NS	NS	0.0051 J	0.014 J	0.014 J	NS	NS	NS
1,2-Dichloroethane	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
1,2-Dichloropropane	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
1,3,5-Trimethylbenzene	NS	NS	NS	NS	NS	NS	0.029 U	0.067 U	0.091 U	NS	NS	NS
1,3-Dichlorobenzene	0.5 U	0.028 JE,H)/0.03 JD,E,H)	0.025 JE,H)/0.027 JE,H)	0.021 [E,H]	0.025 JE,H)	0.013 JH)	0.015 JH)	0.021 JE,H)	0.02 JE,H)	0.014 JH)	0.012 JH)	0.1 U
2-Butanone (Methyl ethyl ketone) (MEK)	12 U	1.2 UI1.2 U	1 UI0.83 U	0.45 U	2.1 U	1.2 U	0.71 U	1.7 U	2.3 U	1.4 U	1.6 U	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	25 U	2.5 UI2.5 U	2.1 UI1.7 U	0.91 U	4.2 U	2.5 U	1.4 UJ	3.3 U	4.5 U	2.8 U	3.1 U	5 U
Acetone	12 U	1.2 UI1.2 U	1 UI0.83 U	0.45 U	2.1 U	1.2 U	0.71 U	1.7 U	2.3 U	1.4 U	1.6 U	2.5 U
Benzene	0.5 U	0.028 JE,H)/0.025 JE,H)	0.025 JE,H)/0.025 JE,H)	0.016 JE,H)	0.083 U	0.05 U	0.024 JE,H)	0.033 JE,H)	0.041 JE,H)	0.03 JE,H)	0.041 JE,H)	0.03 JE,H)
Carbon tetrachloride	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
Chlorobenzene	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.014 J	0.019 J	0.047 JD]	0.075 JD]	0.076 D]	0.092 JD]
cis-1,2-Dichloroethene	15 [D,E,H,J]	0.43 JE,H)/0.44 JE,H)	0.75 [D,E,H]/0.78 [D,E,H]	0.16 [E,H]	1.8 [D,E,H]	1 [D,E,H]	0.28 [E,H]	1.3 [D,E,H]	1.3 [D,E,H]	1.3 [D,E,H]	1 [D,E,H]	2 [D,E,H]
Ethylbenzene	0.5 U	0.094 [D,E,H]/0.09 [D,E,H]	0.085 [D,E,H]/0.088 [D,E,H]	0.045 D]	0.091 [D,E,H]	0.043 JD]	0.087 [D,E,H]	0.14 [D,E,H]	0.18 [D,E,H,J]	0.13 [D,E,H]	0.12 JD,E,H)	0.13 [D,E,H]
Isopropyl benzene	2.5 U	0.25 UI0.25 U	0.21 UI0.17 U	0.091 U	0.42 U	0.25 U	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U
Methyl tert butyl ether (MTBE)	2.5 U	0.25 UI0.25 U	0.21 UI0.17 U	0.091 U	0.42 U	0.25 U	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U
Methylene chloride	2.5 U	0.25 UI0.25 U	0.21 UI0.17 U	0.091 U	0.42 U	0.25 U	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U
Tetrachloroethene	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
Toluene	0.5 U	0.027 JI0.025 J	0.023 JI0.024 J	0.014 J	0.036 J	0.012 J	0.029	0.039 J	0.061 J	0.036 J	0.062 U	0.037 J
trans-1,2-Dichloroethene	0.24 JE,H]	0.021 JI0.022 J	0.015 JI0.017 J	0.091 U	0.42 U	0.25 U	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U
Trichloroethene	0.5 U	0.05 UI0.05 U	0.042 UI0.011 JE,H]	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
Trifluorotrichloroethane (Freon 113)	0.5 U	0.05 UI0.05 U	0.042 UI0.033 U	0.018 U	0.083 U	0.05 U	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U
Vinyl chloride	8.3 [C,D,E,H,I]	1.2 [C,D,E,H,I]/1.2 [C,D,E,H,I]	1.4 [C,D,E,H,I]/1.3 [C,D,E,H,I]	0.63 [D,E,H]	2.5 [C,D,E,H,I]	1.2 [C,D,E,H,I]	0.83 [D,E,H]	2.5 [C,D,E,H,I]	1.9 [C,D,E,H,I]	2.3 [C,D,E,H,I]	2 [C,D,E,H,I]	1.8 [C,D,E,H,I]
Xylenes (total)	1 U	0.1 UJI0.1 UJ	0.083 UI0.015 J	0.0088 J	0.057 JD]	0.1 U	0.017 J	0.13 U	0.18 U	0.023 J	0.023 J	0.2 U
PCBs												
Total PCBs	NS	0.0000660.000089	0.0001 UI0.0001 U	0.0001 U	0.0000088	0.0000609	0.0001 U	0.0000991	0.0000607	0.0000093	0.0001 U	0.0000039

MW19-13	12/3/2003
VOCs	
1,1,2,2-Tetrachloroethane	0.004 U
1,1,2-Trichloroethane	0.004 U
1,1-Dichloroethene	0.004 U
1,2-Dichloroethane	0.004 U
1,2-Dichloropropane	0.004 U
1,3-Dichlorobenzene	0.004 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.2 U
Acetone	0.1 U
Benzene	0.009 [E,H]
Carbon tetrachloride	0.004 U
Chlorobenzene	0.004 U
cis-1,2-Dichloroethene	0.031
Ethylbenzene	0.004 U
Isopropyl benzene	0.02 U
Methyl tert butyl ether (MTBE)	0.02 U
Methylene chloride	0.02 U
Tetrachloroethene	0.004 U
Toluene	0.004 U
trans-1,2-Dichloroethene	0.004 U
Trichloroethene	0.004 U
Trifluorotrichloroethane (Freon 113)	0.004 U
Vinyl chloride	0.12 [D,E,H]
Xylenes (total)	0.008 U

GS-1	3/13/2003	1/29/2004
VOCs		
1,1,2,2-Tetrachloroethane	0.001 UI0.001 U	1.7 U
1,1,2-Trichloroethane	0.001 UI0.001 U	1.7 U
1,1-Dichloroethene	0.004/0.004	1.7 U
1,2,4-Trimethylbenzene	0.001 UI0.001 U	NS
1,2-Dichloroethane	0.002/0.002	1.7 U
1,2-Dichloropropane	0.001 UI0.001 U	1.7 U
1,3,5-Trimethylbenzene	0.001 UI0.001 U	NS
1,3-Dichlorobenzene	0.001 UI0.001 U	1.7 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.025 UI0.025 U	42 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 UI0.05 U	83 U
Acetone	0.025 UI0.025 U	1.2 JI/H]
Benzene	0.17 [E,H]/0.17 [E,H]	1.7 U
Carbon tetrachloride	0.001 UI0.001 U	1.7 U
Chlorobenzene	0.001 UI0.001 U	1.7 U
cis-1,2-Dichloroethene	8.2 [D,E,H]/3.7 [D,E,H]	1.6 JD,E,H]
Ethylbenzene	0.002/0.002	1.7 U
Isopropyl benzene	0.005 UI0.005 U	8.3 U
Methyl tert butyl ether (MTBE)	NS	8.3 U
Methylene chloride	0.005 UI0.005 U	8.3 U
Naphthalene	0.005 UI0.005 U	NS
Tetrachloroethene	0.001 UI0.001 U	1.7 U
Toluene	0.11/0.11	1.7 U
trans-1,2-Dichloroethene	0.11 [E,H]/0.11 [E,H]	1.7 U
Trichloroethene	0.022 [E,H]/0.021 [E,H]	1.7 U
Trifluorotrichloroethane (Freon 113)	NS	1.7 U
Vinyl chloride	44 [B,C,D,E,F,H,I]/51 [B,C,D,E,F,H,I]	44 [B,C,D,E,F,H,I]
Xylenes (total)	0.003 UI0.003 U	3.3 U

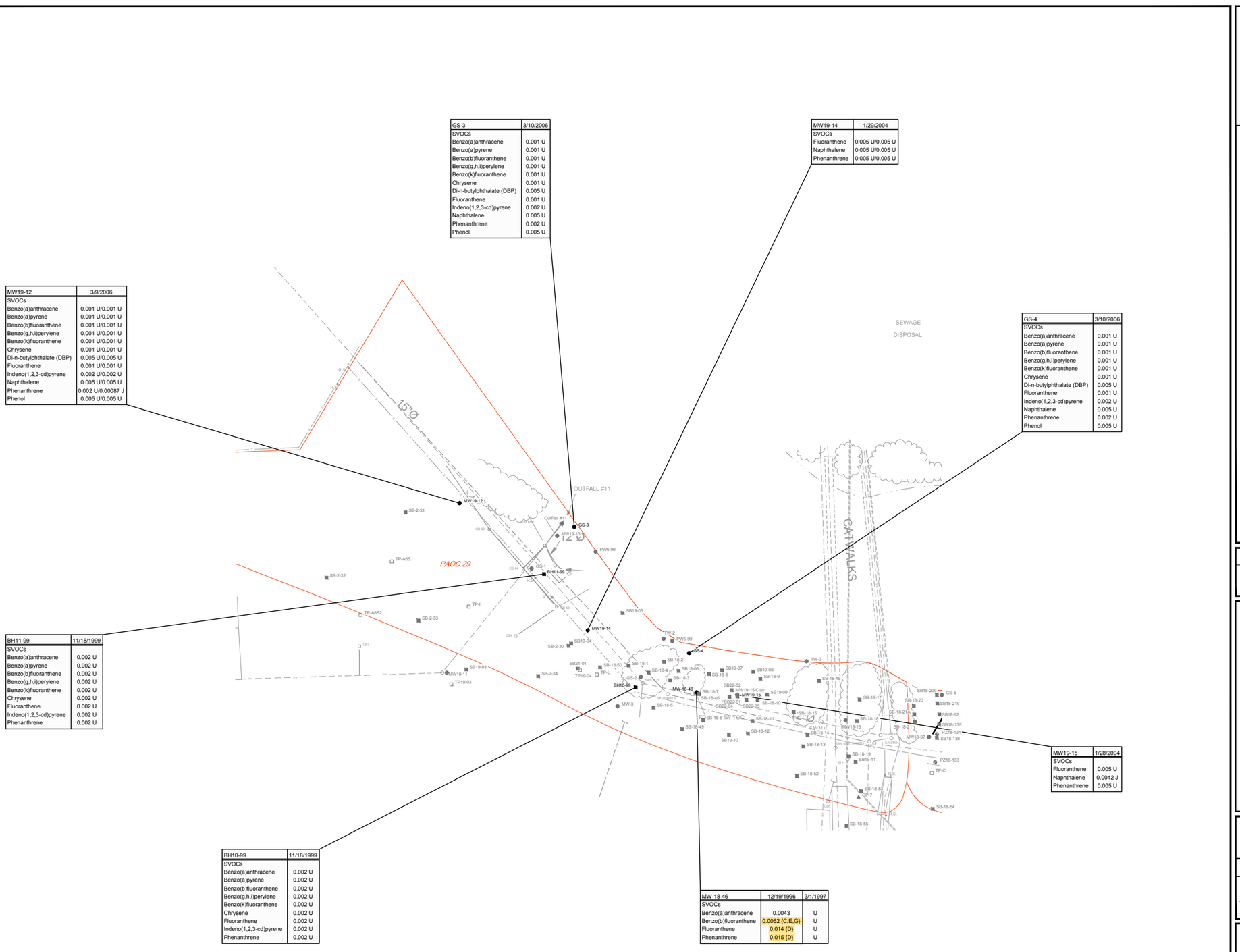
BH10-99	11/18/1999
VOCs	
1,1,2,2-Tetrachloroethane	0.01 U
1,1,2-Trichloroethane	0.01 U
1,1-Dichloroethene	0.01 U
1,2,4-Trimethylbenzene	NS
1,3,5-Trimethylbenzene	0.01 U
1,3-Dichlorobenzene	0.01 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.5 U
Benzene	0.0423 [E]
cis-1,2-Dichloroethene	2.04 [D,E]
Ethylbenzene	0.01 U
Naphthalene	0.05 U
Toluene	0.01 U
trans-1,2-Dichloroethene	0.117 [E]
Trichloroethene	0.0473 [E]
Vinyl chloride	20.7 [C,D,E,F]
Xylenes (total)	0.015 U

BH11-99	11/18/1999
VOCs	
1,1,2,2-Tetrachloroethane	0.005 U
1,1,2-Trichloroethane	0.005 U
1,1-Dichloroethene	0.005 U
1,2,4-Trimethylbenzene	0.005 U
1,3,5-Trimethylbenzene	0.005 U
1,3-Dichlorobenzene	0.005 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.25 U
Benzene	0.0734 [E]
cis-1,2-Dichloroethene	0.803 [D,E]
Ethylbenzene	0.005 U
Naphthalene	0.025 U
Toluene	0.0322
trans-1,2-Dichloroethene	0.0369
Trichloroethene	0.005 U
Vinyl chloride	13.2 [C,D,E,F]
Xylenes (total)	0.015 U

MW-3	4/24/1996	8/3/1999	11/26/2002
1,1,2,2-Tetrachloroethane	NS	0.001 U	0.001 U
1,1,2-Trichloroethane	NS	0.001 U	0.001 U
1,1-Dichloroethene	0.5 U	0.05 [E]	0.015 [E]
1,2,4-Trimethylbenzene	NS	0.001 U	0.001 U
1,2-Dichloroethane	NS	NS	0.001 U
1,2-Dichloropropane	NS	NS	0.001 U
1,3,5-Trimethylbenzene	NS	0.001 U	0.001 U
1,3-Dichlorobenzene	NS	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS	0.05 U	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	NS	0.05 U
Acetone	NS	NS	0.025 U
Benzene	NS	0.19 [E]	0.059 [E]
Carbon tetrachloride	NS	NS	0.001 U
Chlorobenzene	NS	NS	0.001 U
cis-1,2-Dichloroethene	9.8 [D,E]	24 [D,E]	9.8 [D,E]
Ethylbenzene	NS	0.007	0.001
Isopropyl benzene	NS	NS	0.005 U
Methylene chloride	NS	NS	0.005 U
Naphthalene	NS	0.005 U	0.005 U
Tetrachloroethene	NS	NS	0.001 U
Toluene	NS	0.19	0.048
trans-1,2-Dichloroethene	0.7 [E]	1.2 [E]	0.42 JE]
Trichloroethene	0.5 U	0.001	0.001
Vinyl chloride	20 [C,D,E,F]	28 [C,D,E,F]	19 [C,D,E,F]
Xylenes (total)	NS	0.021	0.006

GS-4	4/3/2003	6/27/2003	12/2/2003	4/1/2004	7/1/2004	9/23/2004	12/10/2004	4/13/2005	6/23/2005	10/6/2005	12/14/2005	3/10/2006	6/28/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/7/2007	12/7/2007	3/26/2008	6/19/2008	9/24/2008	12/10/2008	3/27/2009	4/13/2010	10/25/2010
VOCs																										
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 UJ	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 UJ	0.001 U	0.0017 U	0.002 U	0.001 U
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
1,2,4-Trimethylbenzene	0.001 U	0.001 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0067 U	0.001 U	0.001 U	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
1,3,5-Trimethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0067 U	0.001 U	0.001 U	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.025 U	0.025 U	0.025 UI0.025 U	0.25 U	0.18 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.00072 J	0.025 U	0.5 U	0.025 U	0.12 U	0.17 U	0.025 U	0.025 U	0.042 U	0.12 U	0.025 U	0.042 U	0.05 U	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U	0.05 UI0.05 U	0.5 U	0.36 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1 U	0.05 U	0.25 U	0.33 U	0.05 U	0.05 U	0.084 U	0.25 U	0.05 U	0.084 U	0.1 U	0.05 U
Acetone	0.025 U	0.025 U	0.025 UI0.025 U	0.25 U	0.18 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.5 U	0.025 U	0.12 U	0.17 U	0.025 U	0.025 U	0.042 U	0.12 U	0.025 U	0.025 U	0.0049 J	0.05 U	0.025 U
Benzene	0.001 U	0.001	0.00150.0018	0.0031 J	0.0027 J	0.0013 U	0.0014 U	0.0016	0.0022	0.00068 J	0.001 U	0.00048 J	0.001 U	0.02 U	0.001 U	0.005 U	0.0017 J	0.00049 J	0.001 U	0.0017 U	0.005 U	0.001 U	0.00033 J	0.0008 J	0.0012 J	0.00056 J
Carbon tetrachloride	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U
Chlorobenzene	0.001 U	0.001 U	0.001 UI0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00012 J	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.002	0.001 UI0.001 U	0.01 U	0.0019 J	0.001 U	0.00027 J	0.00095 J	0.00047 J	0.001 U	0.0014	0.001 U	0.001 U	0.07	0.001 U	0.005 U	0.0024 J	0.00022 J	0.001 U	0.0017 U	0.005 U	0.001 U	0.0023	0.001 U	0.0017 U	0.0024 J
Ethylbenzene	0.001 U

DRAFT FOR REVIEW



LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- STORM SEWER
- FORMER SLUDGE LINE
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT.

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

GROUNDWATER CRITERIA

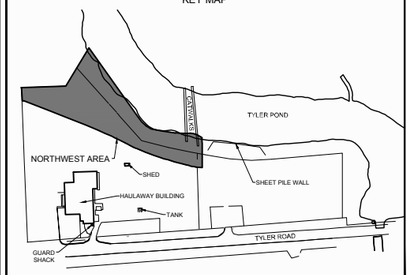
A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION	MW-18-46	12/19/1996	3/1/1997	
	SVOCs			DATE
	Benzo(a)anthracene	0.0043	U	RESULT
	Benzo(b)fluoranthene	0.0062 (C,E,G)	U	
PARAMETER	Fluoranthene	0.014 (D)	U	
	Phenanthrene	0.015 (D)	U	EXCEEDANCE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - SVOCs
NORTHWEST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project N°: 17303-T05	Report N°: 008	Drawing N°: FIGURE 3.12

17303-T05(008)GN-WI026 JUN 28/2011

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N

0 25 50ft

MW19-12	1/28/2004	3/9/2006	6/30/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/6/2007	12/6/2007	3/27/2008	6/19/2008	9/24/2008
Inorganics												
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	NS	NS
Antimony	NS	0.00039 J/0.0006 J	0.002 U/0.002 U	0.00079 J	0.00041 J	0.0001 J	0.000084 J	0.002 U	0.00035 J	0.002 U	0.002 U	0.002 U
Arsenic	NS	0.005 U/0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	NS	0.207/0.156	0.165/0.163	0.122	0.153	0.134	0.159	0.208	0.253	0.207	0.201	0.208
Cadmium	NS	0.001 U/0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.00049 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.0050 U	0.005 U/0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.0070 U	0.007 U/0.007 U	0.007 U/0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	NS	0.002 U/0.002 U	0.002 U/0.002 U	0.002 U	0.002 U	0.002 U	0.00068 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	NS	NS	NS	NS	NS	NS	NS	NS	5.48 {E,H}	NS	NS	NS
Lead	NS	0.003 U/0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	NS	0.989 {E,H}/0.828 {E,H}	0.581 {E,H}/0.634 {E,H}	0.776 {E,H}	0.733 {E,H}	0.885 {E,H}	0.769 {E,H}	0.599 {E,H}	0.55 {E,H}	0.619 {E,H}	0.475 {E,H}	0.514 {E,H}
Mercury	NS	0.0002 U/0.0002 U	0.0002 U/0.0001 J{D}	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0001 J{D}	0.0002 U	0.0002 U	0.001 {D}	0.0002 U
Nickel	NS	0.02 U/0.02 U	0.02 U/0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.0020 U	0.005 U/0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.002 U	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	NS	0.0002 U/0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	0.004 U/0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	NS	0.02 U/0.02 U	0.02 U/0.02 U	0.02 U	0.02 U	0.01 U	0.0064 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

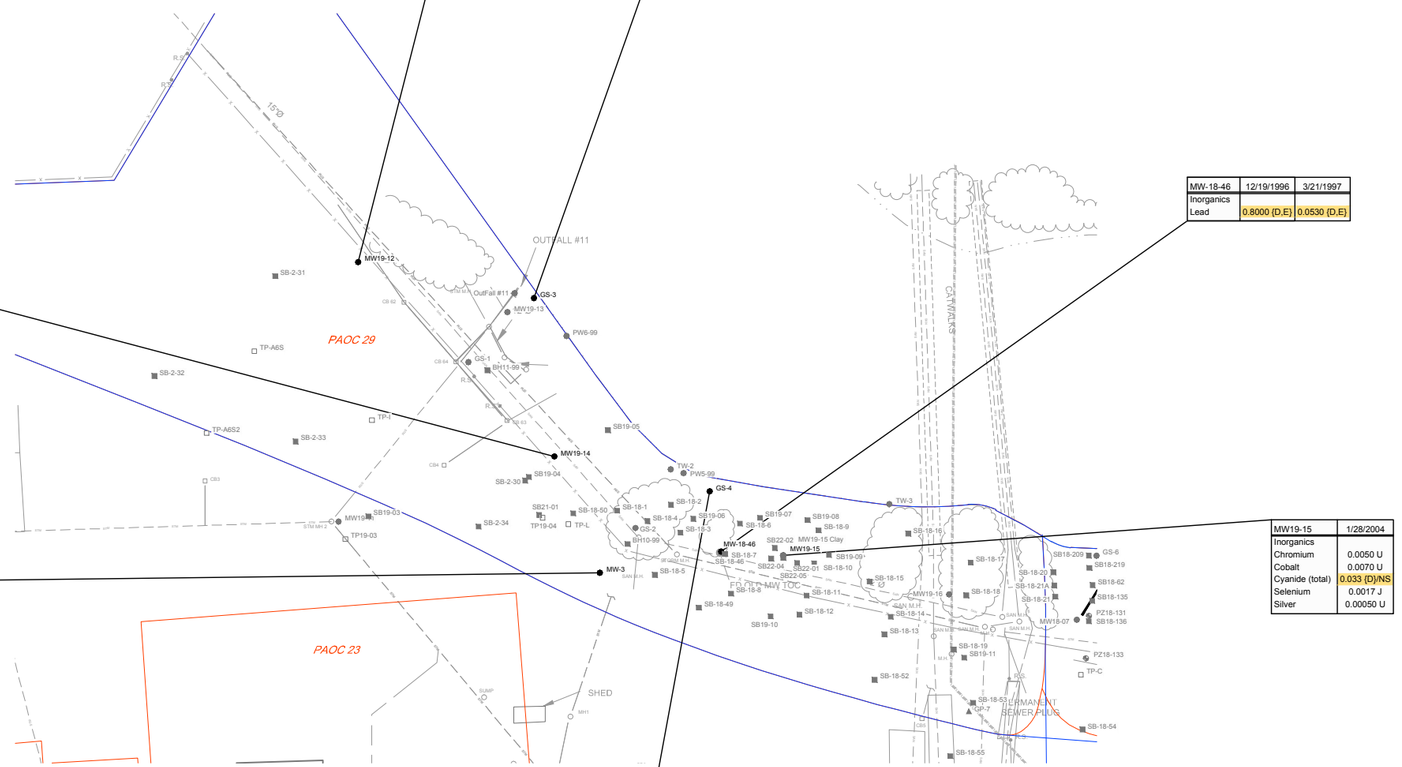
GS-3	3/10/2006	6/27/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/7/2007	12/7/2007	3/27/2008	9/25/2008	3/27/2009
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.445 {E,H}	NS	0.266 {E,H}
Antimony	0.0013 J	0.00026 J	0.00063 J	0.00039 J	0.00027 J	0.00024 J	0.002 U	0.00044 J	0.00029 J	0.00041 J	NS
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056	NS
Barium	0.0213 J	0.0637 J	0.0982 J	0.089 J	0.0453 J	0.0483 J	0.0612 J	0.0626 J	0.0288 J	0.0888 J	NS
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.00028 J	0.00013 J	0.0005 U	0.0005 U	0.0005 U	0.00027 J	NS
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0066	NS
Cobalt	0.007 U	0.007 U	0.007 U	0.0021 J	0.0013 J	0.007 U	0.0015 J	0.007 U	0.007 U	0.0029 J	NS
Copper	0.0066	0.002 U	0.0032 U	0.003 U	0.0025 U	0.0026	0.002 U	0.0025	0.0014 J	0.0089	NS
Lead	0.0019 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.0157 {E,H}	NS
Manganese	0.0781 {E,H}	0.307 {E,H}	0.224 {E,H}	0.515 {E,H}	0.401 {E,H}	0.301 {E,H}	0.26 {E,H}	0.34 {E,H}	0.166 {E,H}	0.292 {E,H}	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NS
Nickel	0.0052 J	0.0048 J	0.0192 J	0.0086 J	0.02 U	0.006 J	0.0035 J	0.0065 J	0.0051 J	0.01 J	NS
Selenium	0.0042 J	0.005 U	0.005 U	0.005 U	0.00068 J	0.00098 J	0.002 U	0.0045	0.0043	0.002 U	NS
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000095 J	NS
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0063 {H}	NS
Zinc	0.0226 U	0.0118 J	0.02 U	0.0297 U	0.0182 U	0.0086 J	0.01 U	0.0152 U	0.015	0.0333	NS

MW19-14	1/29/2004	5/28/2004
Inorganics		
Antimony	0.013 {E,H}/0.016 {E,H}	NS
Arsenic	0.0041 J/0.0075 J	NS
Chromium	0.0020 J/0.0038 J	NS
Cobalt	0.0032 J/0.0021 J	NS
Cyanide (total)	0.0050 U/0.0050 U/NS	NS
Lead	NS	0.0053 {E,H}
Mercury	0.00020 U/0.00020 U	NS
Selenium	0.0020 U/0.0020 U	NS
Silver	0.00050 U/0.00050 U	NS

MW-18-46	12/19/1996	3/21/1997
Inorganics		
Lead	0.8000 {D,E}	0.0530 {D,E}

MW-3	3/21/1997
Inorganics	
Lead	0.0030

MW19-15	1/28/2004
Inorganics	
Chromium	0.0050 U
Cobalt	0.0070 U
Cyanide (total)	0.033 (D)/NS
Selenium	0.0017 J
Silver	0.00050 U



GS-4	3/10/2006	6/28/2006	10/3/2006	12/5/2006	3/7/2007	6/6/2007	9/7/2007	12/7/2007	3/26/2008	9/24/2008	3/27/2009
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.273 {E,H}	NS	0.05 U
Antimony	0.00077 J	0.00059 J	0.00069 J	0.00086 J	0.0006 J	0.00054 J	0.002 U	0.00021 J	0.00033 J	0.0015 J	NS
Arsenic	0.005 U	0.0135 {D,E,H}	0.005 U	0.0047 J	0.005 U	0.0049 J	0.0054	0.005 U	0.005 U	0.005 U	NS
Barium	0.0314 J	0.242	0.0342 J	0.0527 J	0.0377 J	0.0676 J	0.0622 J	0.0245 J	0.0282 J	0.0554 J	NS
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.00018 J	0.00011 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	NS
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NS
Cobalt	0.0038 J	0.007 U	0.0015 J	0.007	0.0051 J	0.0028 J	0.0046 J	0.0048 J	0.0023 J	0.0097	NS
Copper	0.0043	0.002 U	0.0117	0.0044 U	0.002 U	0.0021	0.0054	0.0037	0.00037 J	0.0049	NS
Iron	NS	NS	NS	NS	NS	NS	NS	NS	0.585 {E,H}	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	NS
Manganese	0.86 {E,H}	3.74 {E,H}	0.343 {E,H}	2.15 {E,H}	1.39 {E,H}	1.26 {E,H}	1.62 {E,H}	1.25 {E,H}	0.663 {E,H}	0.796 {E,H}	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NS
Nickel	0.0105 J	0.0018 J	0.0145 J	0.0195 J	0.0105 J	0.0062 J	0.0099 J	0.0173 J	0.0077 J	0.0313	NS
Selenium	0.005 U	0.005 U	0.005 U	0.005 U	0.00094 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NS
Silver	0.0002 U	0.000095 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	NS
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	NS
Zinc	0.0222 U	0.02 U	0.02 U	0.02 U	0.01 U	0.0036 J	0.0105 U	0.01 U	0.0036 J	0.0154 U	NS

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- STORM SEWER
- GROUNDWATER QUADRANT LIMIT
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION — MW19-14 | 1/29/2004 | 5/28/2004 — DATE

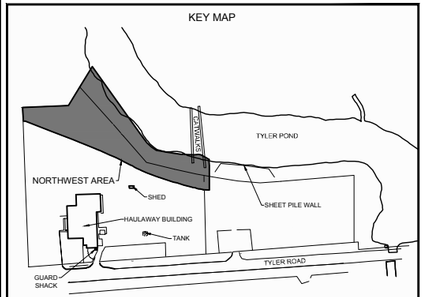
PARAMETER — RESULT — EXCEEDANCE

Inorganics		
Antimony	0.013 {E,H}/0.016 {E,H}	NS
Arsenic	0.0041 J/0.0075 J	NS
Chromium	0.0020 J/0.0038 J	NS
Cobalt	0.0032 J/0.0021 J	NS
Lead	NS	0.0053 {E,H}
Mercury	0.00020 U/0.00020 U	NS
Selenium	0.0020 U/0.0020 U	NS
Silver	0.00050 U/0.00050 U	NS

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - INORGANICS NORTHWEST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

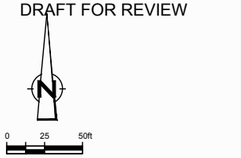
CONESTOGA-ROVERS & ASSOCIATES

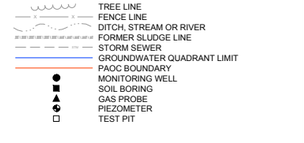
Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project Nº: 17303-T05	Report Nº: 008	Drawing Nº: FIGURE 3.13

17303-T05(008)GN-WI025 JUL 07/2011

DRAFT FOR REVIEW





NOTES

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ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION — Matrix-08 | 8/10/2005 | 8/10/2005 | 8/10/2005 | 8/10/2005 — DATE

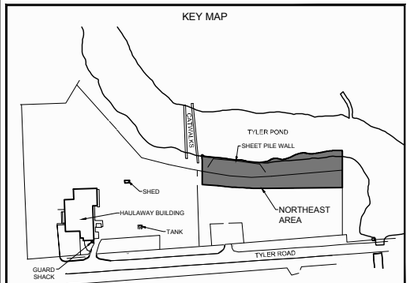
PARAMETER — VOCs
- 1,1,2,2-Tetrachloroethane — 10 U | 10 U | 10 U | 10 U
- 1,1,2-Trichloroethane — 12 U | 10 U | 10 U | 10 U
- 1,1-Dichloroethane — 12 U | 10 U | 10 U | 10 U
- 1,2-Dichloroethane — 12 U | 10 U | 10 U | 10 U
- 1,2-Dichloropropane — 12 U | 10 U | 10 U | 10 U
- 2-Butanone (Methyl ethyl ketone) (MEK) — 310 U | 250 U | 250 U | 250 U
- 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) — 620 U | 500 U | 500 U | 500 U
- Acetone — 310 U | 250 U | 250 U | 250 U
- Benzene — 12 U | 10 U | 10 U | 10 U
- Carbon tetrachloride — 12 U | 10 U | 10 U | 10 U
- Chlorobenzene — 12 U | 10 U | 10 U | 10 U
- Cis-1,2-Dichloroethene — 360 J,C,D,E,F,I | 290 J,C,D,E,F,I | 340 J,C,D,E,F,I | 340 J,C,D,E,F,I
- Ethylbenzene — 12 U | 10 U | 10 U | 10 U
- Isopropyl benzene — 62 U | 50 U | 50 U | 50 U
- Methyl tert butyl ether (MTBE) — 62 U | 50 U | 50 U | 50 U
- Methylene chloride — 62 U | 50 U | 50 U | 50 U
- Tetrachloroethene — 12 U | 10 U | 10 U | 10 U
- Toluene — 12 U | 10 U | 10 U | 10 U
- Trans-1,2-Dichloroethene — 12 U | 10 U | 10 U | 10 U
- Trichloroethene — 4.9 J,D,I | 10 U | 10 U | 10 U
- Trifluorotrichloroethane (Freon 113) — 10 U | 10 U | 10 U | 10 U
- Vinyl chloride — 50 J,B,C,D,E,F,I | 40 J,B,C,D,E,F,I | 40 J,B,C,D,E,F,I | 40 J,B,C,D,E,F,I
- Xylenes (total) — 25 U | 20 U | 20 U | 20 U

EXCEEDANCE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - VOCs AND PCBs
NORTHEAST AREA
SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.14

17303-T05(008)GN-WI021 JUN 28/2011

DRAFT FOR REVIEW

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0 25 50ft

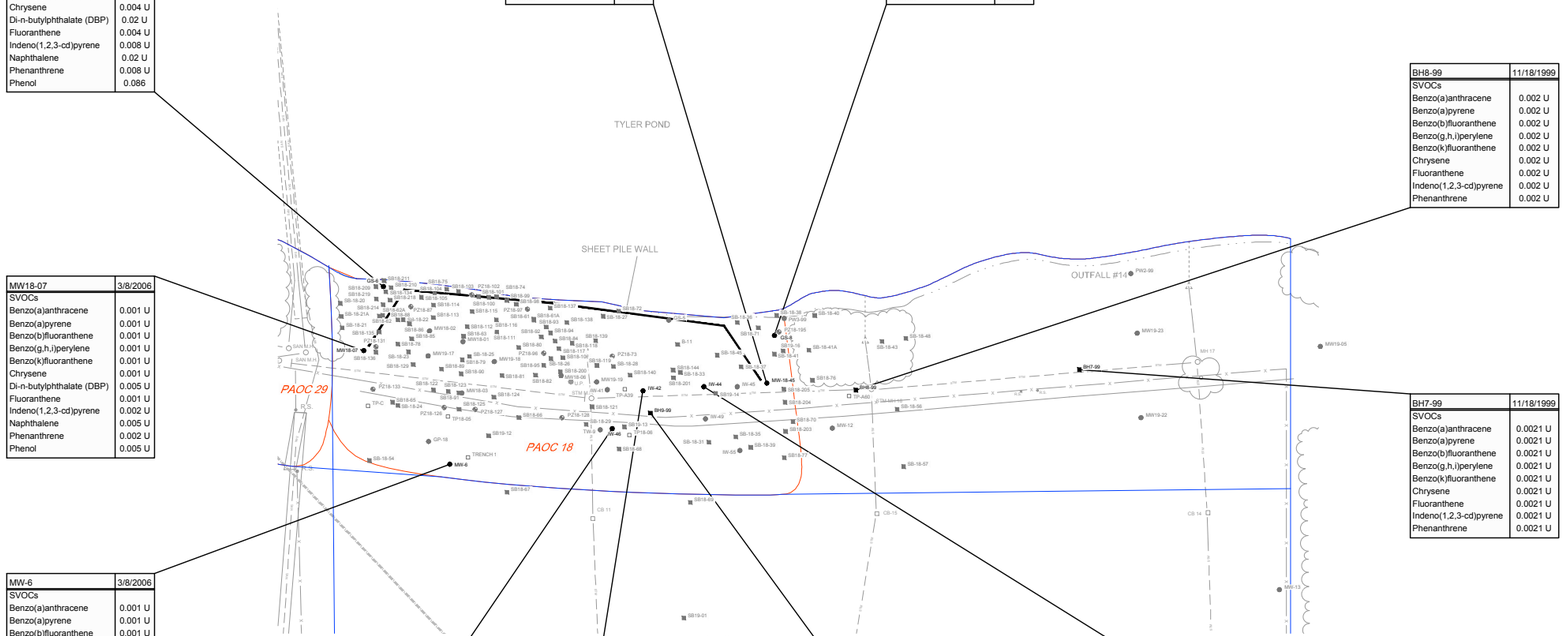
GS-6	3/9/2006
SVOCs	
Benzo(a)anthracene	0.004 U
Benzo(a)pyrene	0.004 U
Benzo(b)fluoranthene	0.004 U
Benzo(g,h,i)perylene	0.004 U
Benzo(k)fluoranthene	0.004 U
Chrysene	0.004 U
Di-n-butylphthalate (DBP)	0.02 U
Fluoranthene	0.004 U
Indeno(1,2,3-cd)pyrene	0.008 U
Naphthalene	0.02 U
Phenanthrene	0.008 U
Phenol	0.086

MW-18-45	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

GS-8	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

BH8-99	11/18/1999
SVOCs	
Benzo(a)anthracene	0.002 U
Benzo(a)pyrene	0.002 U
Benzo(b)fluoranthene	0.002 U
Benzo(g,h,i)perylene	0.002 U
Benzo(k)fluoranthene	0.002 U
Chrysene	0.002 U
Fluoranthene	0.002 U
Indeno(1,2,3-cd)pyrene	0.002 U
Phenanthrene	0.002 U

MW18-07	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U



BH7-99	11/18/1999
SVOCs	
Benzo(a)anthracene	0.0021 U
Benzo(a)pyrene	0.0021 U
Benzo(b)fluoranthene	0.0021 U
Benzo(g,h,i)perylene	0.0021 U
Benzo(k)fluoranthene	0.0021 U
Chrysene	0.0021 U
Fluoranthene	0.0021 U
Indeno(1,2,3-cd)pyrene	0.0021 U
Phenanthrene	0.0021 U

MW-6	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

IW-46	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.00063 J
Phenanthrene	0.002 U
Phenol	0.005 U

IW-42	1/28/2004
SVOCs	
Di-n-butylphthalate (DBP)	0.0004 J
Fluoranthene	0.005 U
Naphthalene	0.005 U
Phenanthrene	0.005 U
Phenol	0.0013 J

BH9-99	11/19/1999
SVOCs	
Benzo(a)anthracene	0.00098 J
Benzo(a)pyrene	0.0015 J[C]
Benzo(b)fluoranthene	0.0017 J[C,E,G]
Benzo(g,h,i)perylene	0.0015 J[C,E,G]
Benzo(k)fluoranthene	0.0015 J[C,E,G]
Chrysene	0.002 J[C,E,G]
Fluoranthene	0.0024 J[D]
Indeno(1,2,3-cd)pyrene	0.0011 J[G]
Phenanthrene	0.0013 J

IW-44	3/8/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- STORM SEWER
- GROUNDWATER QUADRANT LIMIT
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

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ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
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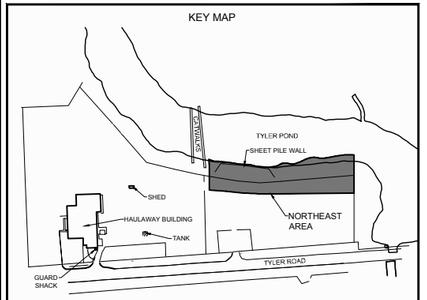
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION	BH9-99	11/19/1999	DATE
	SVOCs		
	Benzo(a)anthracene	0.00098 J	RESULT
PARAMETER	Benzo(a)pyrene	0.0015 J[C]	
	Benzo(b)fluoranthene	0.0017 J[C,E,G]	
	Benzo(g,h,i)perylene	0.0015 J[C,E,G]	EXCEEDANCE
	Benzo(k)fluoranthene	0.0015 J[C,E,G]	
	Chrysene	0.002 J[C,E,G]	
	Fluoranthene	0.0024 J[D]	
	Indeno(1,2,3-cd)pyrene	0.0011 J[G]	
	Phenanthrene	0.0013 J	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - SVOCs
NORTHEAST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project Nº: 17303-T05	Report Nº: 008	Drawing Nº: FIGURE 3.15

17303-T05(008)GN-WI023 JUL 07/2011

GS-6	3/9/2006	6/29/2006	10/3/2006	12/5/2006	3/12/2007	6/5/2007	9/5/2007	12/5/2007	3/26/2008	6/19/2008	9/24/2008
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	NS
Antimony	0.0024	0.0028	0.0045	0.00071 J	0.00015 J	0.00017 J	0.002 U	0.00014 J	0.002 U	0.002 U	0.002 U
Arsenic	0.0087	0.0155 (D,E,H)	0.0297 (D,E,H)	0.005 U	0.005 U	0.0044 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0038 J
Barium	0.174	0.119	0.555	0.057 J	0.0873 J	0.0954 J	0.0814 J	0.103	0.0653 J	0.118	0.124
Cadmium	0.00064 J	0.0022	0.0206 (D,E,H)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005	0.0018 J	0.098 (D)	0.005 U	0.005 U	0.0026 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U	0.0138	0.0035 J	0.0016 J	0.007 U	0.007 U	0.007 U	0.0025 J	0.007 U	0.007 U
Copper	0.0051	0.0048	0.0369 (D)	0.0029 U	0.002 U	0.0023	0.0024 U	0.0019 J	0.002 U	0.002 U	0.002 U
Iron	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.0119 (E,H)	0.0038	0.229 (D,E,H)	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.228 (E,H)	0.12 (E,H)	0.568 (E,H)	0.0855 (E,H)	0.0689 (E,H)	0.0652 (E,H)	0.0577 (E,H)	0.0374	0.0635 (E,H)	0.054 (E,H)	0.0364
Mercury	0.0002 U	0.0002 U	0.00016 J(D)	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00012 J(D)	0.0002 U
Nickel	0.0216	0.0266	0.0504	0.0444	0.0173 J	0.0093 J	0.0064 J	0.0052 J	0.0155 J	0.02 U	0.02 U
Selenium	0.005 U	0.005 U	0.0055 (D)	0.005 U	0.00063 J	0.00074 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.00011 J	0.0002 U	0.0011 (D)	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.0047 (H)	0.004 U	0.0526 (D,H)	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.0294 U	0.0146 J	0.358	0.02 U	0.01 U	0.0055 J	0.01 U	0.005 J	0.01 U	0.01 U	0.01 U

GS-5	6/29/2006	10/3/2006	12/5/2006	6/5/2007	9/6/2007	12/6/2007
Inorganics						
Antimony	0.00044 J	0.000098 J	0.00037 J	0.00026 J	0.00027 J	0.0003 J
Arsenic	0.0115 (D,E,H)	0.0133 (D,E,H)	0.0239 (D,E,H)	0.0153 (D,E,H)	0.0224 (D,E,H)	0.0181 (D,E,H)
Barium	0.551	0.46	0.416	0.836	0.978	0.908
Cadmium	0.0016	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.0028 J	0.0024 J	0.0028 J	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U	0.0014 J	0.007 U	0.007 U	0.007 U
Copper	0.0047	0.0031 U	0.0024 U	0.0012 J	0.002 U	0.0023 U
Iron	NS	NS	NS	NS	NS	25 (E,H)
Lead	0.0064 (E,H)	0.0036	0.0044 (E,H)	0.003 U	0.003 U	0.003 U
Manganese	0.621 (E,H)	0.413 (E,H)	0.589 (E,H)	1.1 (E,H)	0.61 (E,H)	0.769 (E,H)
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00012 J(D)	0.0002 U
Nickel	0.0054 J	0.0026 J	0.0062 J	0.02 U	0.02 U	0.02 U
Selenium	0.005 U	0.005 U	0.005 U	0.00063 J	0.002 U	0.002 U
Silver	0.00097 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.00069 J
Zinc	0.0229	0.0097 J	0.0532 U	0.029	0.0206	0.0337

MW19-17	1/28/2004
Inorganics	
Chromium	0.0550 U
Cobalt	0.0020 J

MW18-03	7/7/2006
Inorganics	
Iron	88.4 (E)
Iron (dissolved)	88.9 (E)
Manganese	5.22 (E)
Manganese (dissolved)	5.5 (E)

MW19-18	1/28/2004
Inorganics	
Chromium	0.0050 U
Cobalt	0.0014 J

MW18-07	3/8/2006	7/6/2006	10/3/2006	12/6/2006	3/9/2007	6/5/2007	9/5/2007	12/5/2007	3/26/2008	6/19/2008	9/24/2008
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	NS
Antimony	0.00064 J	0.0013 J	0.002 U	0.002 U/0.00096 J	0.00015 J	0.00022 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.0037 J	0.005 U	0.005 U	0.0045 J
Barium	0.046 J	0.0322 J	0.0403 J	0.0372 J/0.0384 J	0.0283 J	0.0276 J	0.0228 J	0.0292 J	0.0231 J	0.0208 J	0.0246 J
Cadmium	0.00054 J	0.001 U	0.001 U	0.001 U/0.001 U	0.00013 J	0.00011 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.0032 J	0.0013 J	0.007 U	0.007 U/0.0012 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0018 J	0.007 U
Copper	0.0084	0.0087	0.0057	0.0022 U/0.0023 U	0.0033 U	0.0048 U	0.0042	0.0032	0.002 U	0.002 U	0.002 U
Iron	NS	11.3 (E)	NS	NS	NS	NS	NS	10.2 (E)	8.2 (E)	NS	NS
Iron (dissolved)	NS	9.9 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.472 (E)	0.354 (E)	0.292 (E)	0.257 (E)/0.25 (E)	0.332 (E)	0.33 (E)	0.286 (E)	0.245 (E)	0.323 (E)	0.655 (E)	0.319 (E)
Manganese (dissolved)	NS	0.316 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00014 J(D)
Nickel	0.0042 J	0.0036 J	0.0028 J	0.0016 J/0.002 J	0.02 U	0.0039 J	0.0041 J	0.02 U	0.02 U	0.02 U	0.0037 J
Selenium	0.005 U	0.0035 J	0.005 U	0.005 U/0.005 U	0.0037	0.0025 U	0.0011 J	0.0013 J	0.002 U	0.002 U	0.002 U
Silver	0.0002 UJ	0.0002 U	0.0002 U	0.0002 UJ/0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.0225	0.02 U	0.02 U/0.02 U	0.01 U	0.01 U	0.01 U	0.0038 J	0.0027 J	0.01 U	0.01 U

IW-41	3/8/2007	4/20/2007	6/7/2007	9/5/2007	12/4/2007	3/24/2008	6/18/2008	9/25/2008	3/26/2009
Inorganics									
Aluminum	NS	NS	NS	NS	NS	0.05 U	NS	NS	NS
Antimony	0.00045 J	NS	0.00032 J	0.00041 J	0.00034 J	0.00047 J	0.00033 J	0.00022 J	0.00048 J
Arsenic	0.005 U	NS	0.005 U	0.008	0.012 (D,E)	0.0083	0.0067	0.0099	0.0041 J
Barium	0.036 J	NS	0.17	0.666	0.769	0.827	0.355	0.576	0.398
Cadmium	0.0005 U	NS	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U/0.005 U	0.005 U	0.0017 J	0.0049 J	0.005 U	0.005 U	0.005 U	0.0043 J
Cobalt	0.0015 J	NS	0.007 U	0.0035 J	0.0019 J	0.007 U	0.007 U	0.007 U	0.0029 J
Copper	0.0033 U	NS	0.0027 U	0.002 U	0.002 U	0.0013 J	0.0022	0.00088 J	0.0024
Iron	1.53 (E)	NS	2.71 J(E)	NS	16.3 (E)	25.3 (E)	14.3 (E)	NS	19.1 (E)
Iron (dissolved)	1.53 (E)	NS	3.35 (E)	14.4 (E)	15.8 (E)	27.7 (E)	14.2 (E)	18.1 (E)	18.9 (E)
Lead	0.0025 J	NS	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003
Manganese	12.6 (D,E)	NS	8.59 (D,E)	13.1 (D,E)	10.3 (D,E)	14.5 (D,E)	10.1 (D,E)	6.47 (D,E)	7.06 (D,E)
Manganese (dissolved)	12.8 (D,E)	NS	8.85 (D,E)	14.2 (D,E)	9.85 (D,E)	14.4 (D,E)	9.36 (D,E)	5.69 (E)	7.4 (D,E)
Mercury	0.0002 U	NS	0.0002 U	0.000096 J(D)	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.0089 J	NS	0.0062 J	0.0165 J	0.014 J	0.0108 J	0.0068 J	0.0101 J	0.0094 J
Selenium	0.0071 (D)	NS	0.0153 (D)	0.002 U	0.002 U	0.0114 (D)	0.0076 (D)	0.002 U	0.0282 (D)
Silver	0.0002 U	NS	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.0058	NS	0.005	0.0027 J	0.0032 J	0.004	0.0025 J	0.0022 J	0.004 U
Zinc	0.0103 U	NS	0.01 U	0.0151 U	0.0314	0.0052 J	0.01 U	0.01 U	0.01 U

IW-44	3/8/2006	7/6/2006	10/3/2006	12/5/2006	3/8/2007	6/7/2007	9/5/2007	12/4/2007	3/24/2008	6/18/2008	9/25/2008	3/26/2009
Inorganics												
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.036 J	NS	NS	NS
Antimony	0.00031 J	0.00068 J	0.00017 J	0.00026 J	0.00033 J	0.00018 J	0.00016 J	0.002 U	0.00013 J	0.00015 J	0.00019 J	0.00013 J
Arsenic	0.0051	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0135 (D,E)	0.0149 (D,E)	0.0219 (D,E)	0.0164 (D,E)
Barium	0.0234 J	0.0113 J	0.0138 J	0.0152 J	0.0145 J	0.0123 J	0.0093 J	0.0114 J	0.162	0.071 J	0.346	0.335
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0026 J
Cobalt	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0028 J	0.0019 J
Copper	0.0042	0.0029	0.0031 U	0.0025 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0009 J	0.00043 J
Iron	NS	0.1 U	NS	NS	0.112	0.0369 J	NS	0.1 U	0.759 (E)	0.53 (E)	NS	1.36 (E)
Iron (dissolved)	NS	0.1 U	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.443 (E)	0.255	4.82 (E)	1.46 (E)
Lead	NS	NS	NS	NS	NS	NS	NS	NS	0.0021 J	0.003 U	0.003 U	0.003 U
Manganese	9.3 (D,E)	9.86 (D,E)	10.8 (D,E)	11.6 (D,E)	11.8 (D,E)	9.86 (D,E)	8.72 (D,E)	9.88 (D,E)	14.8 (D,E)	15.9 (D,E)	19.5 (D,E)	8.44 (D,E)
Manganese (dissolved)	NS	9.51 (D,E)	NS	NS	11.4 (D,E)	7.55 (D,E)	8.4 (D,E)	9.45 (D,E)	13.3 (D,E)	14.7 (D,E)	18.5 (D,E)	9.02 (D,E)
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00014 J(D)	0.0002 U	0.0002 U
Nickel	0.0034 J	0.0071 J	0.0076 J	0.0074 J	0.02 U	0.0065 J	0.0059 J	0.0069 J	0.0107 J	0.0082 J	0.0187 J	0.0087 J
Selenium	0.0082 (D)	0.005 U	0.005 U	0.005 U	0.00063 J	0.002 U	0.002 U	0.0013 J	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.000052 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.0173 (D)	0.0098	0.0116	0.0124 (D)	0.012	0.01	0.0064	0.0095	0.0085	0.0061	0.0228 (D)	0.0149 (D)
Zinc	0.0296 U	0.0154 J	0.0165 J	0.02 U	0.0235 U	0.0101 U	0.01 U	0.01 U	0.0066 J	0.01 U	0.01 U	0.0129 U

GS-8	3/8/2006	6/29/2006	10/3/2006	12/6/2006	3/8/2007	6/8/2007	9/6/2007	12/6/2007	3/25/2008	6/19/2008	9/25/2008	3/26/2009
Inorganics												
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.28 (E,H)	NS	NS	NS
Antimony	0.00059 J	0.00049 J	0.0003 J	0.002 U	0.00028 J	0.00022 J	0.00049 J	0.00032 J	0.002 U	0.00018 J	0.00027 J	0.00015 J
Arsenic	0.0104 (D,E,H)	0.0055	0.006	0.005 U	0.005 U	0.0048 J	0.0064	0.0136 (D,E,H)	0.0038 J	0.005 U	0.0049 J	0.0061
Barium	0.342	0.217	0.207	0.18	0.199	0.177	0.184	0.193	0.167	0.122	0.175	0.19
Cadmium	0.00077 J	0.00084 J	0.001 U	0.001 U	0.00008 J	0.00011 J	0.00012 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.0144 (D)	0.0087	0.005 U	0.005 U	0.0021 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0023 J
Cobalt	0.0107	0.0088	0.0044 J	0.0063 J	0.0088	0.0056 J	0.0031 J	0.0072	0.0091	0.0034 J	0.0036 J	0.0106
Copper	0.0067	0.0086	0.0037 U	0.0029 U	0.0042 U	0.0036 U	0.0038	0.0033	0.00065 J	0.002 U	0.0038	0.002
Iron	NS	NS	NS	NS	2.53 (E,H)	1.41 J(E,H)	NS	4.43 (E,H)	1.37 (E,H)	NS	NS	2.61 (E,H)
Iron (dissolved)	NS	NS	NS	NS	0.653 (E,H)	0.0766 J	0.052 J	0.1 U	0.47 (E,H)	0.129	0.1 U	1.18 (E,H)
Lead	0.0275 (E,H)	0.0092 (E,H)	0.0022 J	0.003 U	0.0026 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.0022 J	0.003 U
Manganese	2.36 (E,H)	1.61 (E,H)	1.54 (E,H)	2.09 (E,H)	2.47 (E,H)	1.93 (E,H)	1.4 (E,H)	1.99 (E,H)	2.09 (E,H)	1.29 (E,H)	0.916 (E,H)	1.95 (E,H)
Manganese (dissolved)	NS	NS	NS	NS	2.55 (E,H)	1.94 (E,H)	1.74 (E,H)	1.71 (E,H)	2.22 (E,H)	1.18 (E,H)	1.35 (E,H)	2.02 (E,H)
Mercury	0.0002 U	0.0001 J(D)	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.0213	0.0144 J	0.0065 J	0.0083 J	0.0087 J	0.0093 J	0.0058 J	0.0088 J	0.0083 J	0.0068 J	0.0083 J	0.0103 J
Selenium	0.0048 J	0.0027 J	0.005 U	0.005 U	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 UJ	0.000049 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.0197 (D,H)	0.0091 (H)	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0026 J	0.00095 J	0.00081 J	0.004 U	0.0015 J
Zinc	0.122 U	0.031	0.007 J	0.02 U	0.0169 U	0.041	0.0129 U	0.0134 U	0.0054 J	0.01 U	0.01 U	0.01 U

IW-45	3/8/2007	6/7/2007	9/5/2007	12/4/2007	3/25/2008	6/18/2008	9/25/2008	3/26/2009
Inorganics								
Aluminum	NS	NS	NS	NS	0.0414 J	NS	NS	NS
Antimony	0.00049 J	0.00027 J	0.002 U	0.002 U	0.002 U	0.00021 J	0.00022 J	0.00018 J
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	0.0044 J	0.1 U	0.1 U	0.1 U	0.0025 J	0.0024 J	0.1 U	0.0025 J
Cadmium	0.0003 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005	0.0021 J	0.005 U	0.005 U	0.0048 J	0.005 U	0.005 U	0.005
Cobalt	0.0019 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0052 U	0.0032 U	0.0031	0.0032	0.00061 J	0.002 U	0.0035	0.0013 J
Iron	0.124	0.1 U	NS	0.1 U	0.1 U	0.1 U	NS	0.1 U
Iron (dissolved)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	2.83 (E)	0.576 (E)	0.734	5.02 (E)	0.952 (E)	0.509 (E)	7.35 (D,E)	0.12 (E)
Manganese (dissolved)	1.59 (E)	0.327 (E)	0.844	4.88 (E)	0.247 (E)	0.0516 (E)	9.06 (D,E)	0.253 (E)
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.02 U	0.02 U	0.002 J	0.0045 J	0.02 U	0.02 U	0.0094 J	0.02 U
Selenium	0.0758 (D,E)	0.231 (D,E)	0.0192	0.0035	0.0299 (D)	0.0341 (D)	0.0058 (D)	0.0276 (D)
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.0036 J	0.004 U	0.0034 J	0.0058	0.0013 J	0.0016 J	0.0037 J	0.004 U
Zinc	0.01 U	0.01 U	0.01 U	0.01 U	0.0028 J	0.01 U	0.01 U	0.01 U

MW-12	3/21/1997	10/5/2006	12/7/2006	3/8/2007	6/5/2007	9/5/2007	12/4/2007	3/25/2008	6/18/2008	9/23/2008
Inorganics										
Aluminum	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	NS
Antimony	NS	0.00046 J	0.00025 J	0.00017 J	0.00018 J	0.002 U	0.00017 J	0.002 U	0.002 U	0.002 U
Arsenic	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	NS	0.0352 J	0.0397 J	0.0313 J	0.0375 J	0.0325 J	0.0392 J	0.0323 J	0.0389 J	0.0345 J
Cadmium	NS	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00033 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	NS	0.0022 J	0.0012 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	NS	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00074 J
Iron	NS	NS	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	NS
Lead	0.0050 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	NS	0.0807 (E)	0.0617 (E)	0.0446 J	0.0391	0.0335	0.0438	0.0959 J	0.0507 (E)	0.0371
Mercury	NS	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00013 J(D)	0.0002 U	0.0002 U
Nickel	NS	0.0017 J	0.0028 J	0.02 U	0.0018 J	0.0024 J	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	NS	0.005 U	0.005 U	0.002	0.0024 U	0.0011 J	0.0014 J	0.002 U	0.002 U	0.002 U
Silver	NS	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	NS	0.0094 J	0.0282 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0044 J	0.01 U	0.0065 J

MW-6	3/21/1997	3/8/2006	6/30/2006	10/5/2006	12/6/2006	3/8/2007	6/5/2007	9/5/2007	12/6/2007	3/25/2008	6/19/2008	9/23/2008
Inorganics												
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0753 (E)	NS	NS
Antimony	NS	0.00013 J	0.00052 J	0.0006 J/0.00027 J	0.002 U	0.00013 J	0.00017 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	NS	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0053 U	0.0044 J	
Barium	NS	0.126	0.113	0.125/0.124	0.115	0.122	0.115	0.0897 J	0.115	0.117	0.104	0.105
Cadmium	NS	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.0005 U	0.0005 U	0.00019 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0023 J
Cobalt	NS	0.007 U	0.007 U	0.007 U/0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	NS	0.0036	0.002 U	0.0024 U/0.0021 U	0.002 U	0.0031 U	0.0023 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0008 J
Iron	NS	NS	7.31 (E)	NS	NS	NS	NS	NS	NS	7.36 (E)	7.32 (E)	NS
Iron (dissolved)	NS	NS	6.76 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.0050 U	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	NS	0.342 (E)	0.347 (E)	0.345 (E)/0.338 (E)	0.299 (E)	0.352 (E)	0.326 (E)	0.315 (E)	0.305 (E)	0.33 (E)	0.355 (E)	0.29 (E)
Manganese (dissolved)	NS	NS	0.324 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NS	0.0002 U	0.0001 J(D)	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	NS	0.02 U	0.02 U	0.02 U/0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	NS	0.005 U	0.003 J	0.005 U/0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	NS	0.0002 UJ	0.0002 U	0.0002 UJ/0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	NS	0.02 U	0.02 U	0.02 U/0.02 U	0.02 U	0.0126 U	0.01 U	0.01 U	0.01 U	0.0041 J	0.01 U	0.0063 J

IW-42	1/28/2004	5/28/2004
Inorganics		
Antimony	0.00026 J	NS
Chromium	0.0050 U	NS
Cobalt	0.0070 U	NS
Mercury	0.00020 U	NS
Selenium	NS	0.0015 J
Silver	0.00056 (D)	NS

IW-46	12/14/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	6/26/2003	8/13/2003	3/8/2006	6/30/2006	10/5/2006	12/5/2006	3/8/2007	6/5/2007	9/5/2007	12/4/2007	3/25/2008	6/18/2008	9/23/2008
Inorganics																		
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0319 J	NS	NS
Antimony	NS	NS	NS	NS	NS	NS	NS	0.00075 J	0.00052 J	0.0023	0.00066 J	0.00062 J	0.0004 J	0.002 U	0.00056 J	0.00025 J	0.00018 J	0.002 U
Arsenic	NS	NS	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	NS	NS	NS	NS	NS	NS	NS	0.0063 J	0.0034 J	0.0044 J	0.0035 J	0.0036 J	0.0072 J	0.0115 J	0.0066 J	0.0076 J	0.0058 J	0.0075 J
Cadmium	NS	NS	NS	NS	NS	NS	NS	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00016 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	NS	NS	NS	NS	NS	NS	0.005 U	0.0086	0.0063	0.0051	0.004 J	0.005 U	0.005 U	0.0031 J	0.005 U	0.005 U	0.005 U
Cobalt	NS	NS	NS	NS	NS	NS	NS	0.007 U	0.0013 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	NS	NS	NS	NS	NS	NS	NS	0.0032 U	0.002 U	0.0022

DRAFT FOR REVIEW

0 40 80ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- STORM SEWER
- GROUNDWATER QUADRANT LIMIT
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE RESPECTIVE PAOC. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

* - MW2 CONVERTED TO IW-33

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION — PARAMETER — DATE — RESULT — EXCEEDANCE

MW-8	4/24/1996	2/1/1997	5/1/1997	11/1/1997
VOCs				
1,1-Dichloroethane	0.001 U	NS	NS	0.005 U
1,1-Dichloroethene	NS	NS	NS	0.005 U
Benzene	NS	0.001 U	0.0032	0.005 U
cis-1,2-Dichloroethene	0.039	0.052	NS	0.025
Ethylbenzene	NS	0.001 U	0.001 U	0.001 U
Toluene	NS	0.001 U	0.0014	0.001 U
trans-1,2-Dichloroethene	0.005	0.0029	NS	0.002
Trichloroethene	0.015 [D]	0.015 [D]	NS	0.01 [D]
Vinyl chloride	0.001 U	0.0038 [D]	NS	0.001 U
Xylenes (total)	NS	0.0016	0.0035	0.003 U

MW-8	11/26/2002
VOCs	
1,1,2,2-Tetrachloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.077 [E]
1,2,4-Trimethylbenzene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloropropane	0.001 U
1,3,5-Trimethylbenzene	0.001 U
1,3-Dichlorobenzene	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.025 U
Acetone	0.025 U
Benzene	0.044 [E]
Carbon tetrachloride	0.001 U
Chlorobenzene	0.001 U
cis-1,2-Dichloroethene	53 [D,E]
Ethylbenzene	0.001 U
isopropyl benzene	0.005 U
Methylene chloride	0.005 U
Naphthalene	0.005 U
Tetrachloroethene	0.11
Toluene	7.6 [E,G]
trans-1,2-Dichloroethene	1.056 [E]
Trichloroethene	69 [B,C,D,E,F]
Vinyl chloride	0.083 [D]
Xylenes (total)	

MW-2	10/14/2000	3/21/2001
VOCs		
1,1,2,2-Tetrachloroethane	0.003	0.001 U
1,1,2-Trichloroethane	0.007 [E]	0.005
1,1-Dichloroethane	0.52 [D,E]	0.41 [D,E]
1,2,4-Trimethylbenzene	0.032 [E]	0.001 [D,E]
1,2-Dichlorobenzene	0.002	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U
1,3,5-Trimethylbenzene	0.005	0.025
1,3-Dichlorobenzene	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U
Acetone	0.12	0.12
Benzene	0.13 [E]	0.074 [E]
Carbon tetrachloride	0.001 U	0.001 U
Chlorobenzene	0.001 U	0.001 U
cis-1,2-Dichloroethene	72 [D,E]	60 [D,E]
Ethylbenzene	0.28 [D,E]	0.37 [D,E]
isopropyl benzene	0.008	0.001 U
Methylene chloride	0.019 [D]	0.042 [D]
Naphthalene	0.01	0.031 [D]
Tetrachloroethene	0.001 U	0.001 U
Toluene	0.03 [D]	0.001 [D]
trans-1,2-Dichloroethene	4.6 [D,E]	5 [D,E]
Trichloroethene	24 [C,D,E]	19 [C,D,E,F]
Vinyl chloride	1.9 [D,E]	1.47 [D,E]
Xylenes (total)	0.59 [D,E]	1.47 [D,E]

MW-3	10/14/2000	11/10/2000	1/12/2001	2/12/2001	3/21/2001	4/17/2001	5/24/2001
VOCs							
1,1,2,2-Tetrachloroethane	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	0.013 [D]	0.006 [D,E]	0.016 [E]	0.046 [D]	0.027 [D]	0.036 [D]	0.027 [D]
1,1-Dichloroethane	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	0.005	0.008	0.004 J	0.012	0.008	0.011	0.001 U
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.05 U	0.16	0.05 U	0.24 J	0.05 U	0.054	0.1
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U	0.058 J	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	0.1 U	0.66	0.3 J	1.2 J	0.15	0.32	0.34 J
Benzene	0.088 [E]	0.073 [E]	0.09 [E]	0.12 [E]	0.12 [E]	0.13 [E]	0.1 [E]
Carbon tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001 U
cis-1,2-Dichloroethene	36 [D,E]	43 [D,E]	16 [D,E]	39 [D,E]	7.3 [D,E]	19 [D,E]	8.2 [D,E]
Ethylbenzene	0.17 [D,E]	0.22 J [D,E]	0.12 J [D,E]	0.26 J [D,E]	0.24 J [D,E]	0.21 [D,E]	0.14 [D,E]
isopropyl benzene	0.006	0.007	0.001 U	0.008	0.009	0.007	0.006
Methylene chloride	0.023 [D]	0.037 [D]	0.029 U	0.036 [D]	0.025 U	0.036 [D]	0.025 [D]
Naphthalene	0.008	0.013 [D]	0.015 J [D]	0.021 [D]	0.046 [D]	0.025 [D]	0.016 [D]
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.5 U	0.36 J [D]	0.13 J	NS	0.19 J	0.19	0.083
trans-1,2-Dichloroethene	4.5 [D,E]	2.6 [D,E]	1.2 [E]	1.1 [E]	0.62 J [D]	1.4 [E]	0.8 [E]
Trichloroethene	66 [C,D,E]	34 [C,D,E]	19 [D,E]	24 [D,E]	7.7 [D,E]	17 [D,E]	9.9 [D,E]
Vinyl chloride	8.9 [C,D,E]	2.8 [C,D,E]	4.8 [C,D,E]	5.6 [C,D,E]	2.6 [C,D,E]	4.7 [C,D,E]	3 [C,D,E]
Xylenes (total)	0.52 [D,E]	0.55 [D,E]	0.26 J [D]	0.76 [D,E]	0.47 J [D,E]	0.52 [D,E]	0.316 [D,E]

MW-4	4/24/1996	2/1/1997	11/26/2002
VOCs			
1,1,2,2-Tetrachloroethane	NS	NS	0.001 U
1,1,2-Trichloroethane	NS	NS	0.001 U
1,1-Dichloroethane	0.001 U	NS	0.001 U
1,2,4-Trimethylbenzene	NS	NS	0.001 U
1,2-Dichlorobenzene	NS	NS	0.001 U
1,2-Dichloropropane	NS	NS	0.001 U
1,3,5-Trimethylbenzene	NS	NS	0.001 U
1,3-Dichlorobenzene	NS	NS	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS	NS	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	NS	0.05 U
Acetone	NS	NS	0.028 U
Benzene	NS	0.001 U	0.001 U
Carbon tetrachloride	NS	0.001 U	0.001 U
Chlorobenzene	NS	NS	0.001 U
cis-1,2-Dichloroethene	0.014	0.0085	0.001 U
Ethylbenzene	NS	0.001 U	0.001 U
isopropyl benzene	NS	NS	0.005 U
Methyl tert butyl ether (MTBE)	NS	NS	0.005 U
Methylene chloride	NS	NS	0.005 U
Naphthalene	NS	NS	0.005 U
Tetrachloroethene	NS	NS	0.001 U
Toluene	NS	0.0014	0.001 U
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	NS	NS	0.001 U
Vinyl chloride	0.007 [E,H]	0.0061 [E,H]	0.001 U
Xylenes (total)	NS	NS	0.003 U
PCBs			
Total PCBs	NS	NS	NS

MW-5	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	11/26/2002	8/26/2003	12/2/2003
VOCs								
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,1,2-Trichloroethane	0.001	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,1-Dichloroethane	0.015 [E]	0.012 [E]	0.012 [E]	0.004	0.011 [E]/0.012 [E]	0.026 [E]	0.021 [E]	2 U
1,2,4-Trimethylbenzene	0.005	0.011	0.005	0.002	0.0045/0.005	0.01	0.005	NS
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,3,5-Trimethylbenzene	0.002	0.004	0.003	0.001	0.0025 /0.001 U	0.004	0.001 U	NS
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.64 J	0.16	0.05 U	0.05 U	0.05 U/0.05 U	0.025 U	0.025 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U/0.05 U	0.05 U	0.025 U	100 U
Acetone	0.1 U	0.13	0.16	0.1 U	0.1/0.1	0.025 U	0.025 U	50 U
Benzene	0.02 [E]	0.024 [E]	0.041 [E]	0.015 [E]	0.007 [E]/0.008 [E]	0.043 [E]	0.025 [E]	2 U
Carbon tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
cis-1,2-Dichloroethene	16 [D,E]	21 [D,E]	24 [D,E]	4.8 [D,E]	20 [D,E]/20 [D,E]	29 [D,E]	16 [D,E]	22 [D,E]
Ethylbenzene	0.071 [E]	0.11 [D,E]	0.19 [D,E]	0.04 [E]	0.12 [D,E]/0.11 [D,E]	0.03 [D]	0.012	2 U
isopropyl benzene	0.023	0.026	0.028	0.01	0.001 U/0.025	0.036 [D]	0.016	10 U
Methyl tert butyl ether (MTBE)	NS	NS	NS	NS	NS/NS	NS	NS	10 U
Methylene chloride	0.005	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	10 U
m-Xylene	NS	NS	NS	NS	NS/NS	NS	NS	NS
Naphthalene	0.046 [D]	0.075 [D]	0.06 [D]	0.009	0.033 [D]/0.033 [D]	0.005 U	0.01	NS
o-Xylene	NS	NS	NS	NS	NS/NS	NS	NS	NS
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
Toluene	0.38 [D]	0.1 [D,E]	1.1 [D,E]	0.22	1.1 [D,E]/0.9 [D,E]	1.2 [D,E]	0.54 [D]	2 [D,E]
trans-1,2-Dichloroethene	0.46 [E]	0.47 [E]	1 [E]	0.19 [E]	0.61 [E]/0.86 [E]	0.86 [E]	0.5 U	0.36 [E]
Trichloroethene	0.43 [D,E]	0.17 [E]	0.16 [E]	0.15 [E]	0.054 [D,E]/0.051 [E]	0.014 [E]	0.005 [E]	2 U
Trifluorotrichloroethane (Freon 113)	NS	NS	NS	NS	NS/NS	NS	NS	2 U
Vinyl chloride	31 [C,D,E,F]	19 [C,D,E,F]	42 [B,C,D,E,F]	4 [D,E]	36 [B,C,D,E,F]/39 [B,C,D,E,F]	73 [B,C,D,E,F]	14 [B,C,D,E,F]	68 [C,D,E,F]
Xylenes (total)	0.266 [D]	0.97 [D,E]	4 U	0.167 [D]	0.92 [D,E]/0.8 [D,E]	3 U	0.3 [D,E]	4 U
PCBs								
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS

MW-6	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	11/26/2002	8/26/2003	12/2/2003
VOCs								
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,1,2-Trichloroethane	0.001	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,1-Dichloroethane	0.015 [E]	0.012 [E]	0.012 [E]	0.004	0.011 [E]/0.012 [E]	0.026 [E]	0.021 [E]	2 U
1,2,4-Trimethylbenzene	0.005	0.011	0.005	0.002	0.0045/0.005	0.01	0.005	NS
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,2-Dichloropropane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
1,3,5-Trimethylbenzene	0.002	0.004	0.003	0.001	0.0025 /0.001 U	0.004	0.001 U	NS
1,3-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.64 J	0.16	0.05 U	0.05 U	0.05 U/0.05 U	0.025 U	0.025 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U/0.05 U	0.05 U	0.025 U	100 U
Acetone	0.1 U	0.13	0.16	0.1 U	0.1/0.1	0.025 U	0.025 U	50 U
Benzene	0.02 [E]	0.024 [E]	0.041 [E]	0.015 [E]	0.007 [E]/0.008 [E]	0.043 [E]	0.025 [E]	2 U
Carbon tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
cis-1,2-Dichloroethene	16 [D,E]	21 [D,E]	24 [D,E]	4.8 [D,E]	20 [D,E]/20 [D,E]	29 [D,E]	16 [D,E]	22 [D,E]
Ethylbenzene	0.071 [E]	0.11 [D,E]	0.19 [D,E]	0.04 [E]	0.12 [D,E]/0.11 [D,E]	0.03 [D]	0.012	2 U
isopropyl benzene	0.023	0.026	0.028	0.01	0.001 U/0.025	0.036 [D]	0.016	10 U
Methyl tert butyl ether (MTBE)	NS	NS	NS	NS	NS/NS	NS	NS	10 U
Methylene chloride	0.005	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	10 U
m-Xylene	NS	NS	NS	NS	NS/NS	NS	NS	NS
Naphthalene	0.046 [D]	0.075 [D]	0.06 [D]	0.009	0.033 [D]/0.033 [D]	0.005 U	0.01	NS
o-Xylene	NS	NS	NS	NS	NS/NS	NS	NS	NS
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	2 U
Toluene	0.38 [D]	0.1 [D,E]	1.1 [D,E]	0.22	1.1 [D,E]/0.9 [D,E]	1.2 [D,E]	0.54 [D]	2 [D,E]
trans-1,2-Dichloroethene	0.46 [E]	0.47 [E]	1 [E]	0.19 [E]	0.61 [E]/0.86 [E]	0.86 [E]	0.5 U	0.36 [E]
Trichloroethene	0.43 [D,E]	0.17 [E]	0.16 [E]	0.15 [E]	0.054 [D,E]/0.051 [E]	0.014 [E]	0.005 [E]	2 U
Trifluorotrichloroethane (Freon 113)	NS	NS	NS	NS	NS/NS	NS	NS	2 U
Vinyl chloride	31 [C,D,E,F]	19 [C,D,E,F]	42 [B,C,D,E,F]	4 [D,E]	36 [B,C,D,E,F]/39 [B,C,D,E,F]	73 [B,C,D,E,F]	14 [B,C,D,E,F]	68 [C,D,E,F]
Xylenes (total)	0.266 [D]	0.97 [D,E]	4 U	0.167 [D]	0.92 [D,E]/0.8 [D,E]	3 U	0.3 [D,E]	4 U
PCBs								
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS

MW-7	4/24/1996	2/1/1997	5/1/1997	8/1/1997	11/1/1997
VOCs					
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS
1,1,2-Trichloroethane	NS	NS	NS	NS	NS
1,1-Dichloroethane	0.05 U	NS	NS	0.001 U	0.001 U
1,2-Dichlorobenzene	NS	NS	NS	0.001 U	NS
1,2-Dichloropropane	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	NS	NS	NS	NS	NS
2-Butanone (Methyl ethyl ketone) (MEK)	NS	NS	NS	NS	NS
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	NS	NS	NS	NS
Acetone	NS	NS	NS	NS	NS
Benzene	NS	0.46 [D,E,H]	0.34 [D,E,H]	0.19 [E,H]	0.32 [D,E,H]
Carbon tetrachloride	NS	NS	NS	NS	NS
Chlorobenzene	NS	NS	NS	0.003	NS
cis-1,2-Dichloroethene	0.05 U	2.2 [D,E,H]	NS	0.087 [E,H]	0.001 U
Ethylbenzene	NS	0.79 [D,E,H]	1.3 [D,E,H]	0.5 [D,E,H]	0.79 [D,E,H]
isopropyl benzene	NS	NS	NS	NS	NS
Methyl tert butyl ether (MTBE)	NS	NS	NS	NS	NS
Methylene chloride	NS	NS	NS	NS	NS
Tetrachloroethene	NS	NS	NS	NS	NS
Toluene	NS	0.0084	0.036	0.009	0.001 U
trans-1,2-Dichloroethene	NS	0.028 U	0.028 U	0.003	0.001 U
Trichloroethene	0.05 U	0.47 [D,E,H]	NS	0.001	0.39 [D,E,H]
Trifluorotrichloroethane (Freon 113)	NS	NS	NS	NS	NS
Vinyl chloride	0.05 U	0.62 [C,D,E,H,I]	NS	0.48 [D,E,H]	0.22 [D,E,H,I]
Xylenes (total)	NS	3 [D,E,H]	4.8 [D,E,H]	1.1 [D,E,H]	1.35 [D,E,H]

MW-9	4/24/1996	2/1/1997	5/1/1997	8/1/1997	11/1/1997
VOCs					
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS
1,1,2-Trichloroethane	NS	NS	NS	NS	NS
1,1-Dichloroethane	0.007 U	NS	NS	0.001 U	0.001 U
1,2,4-Trimethylbenzene	NS	NS	NS	NS	NS
1,2-Dichlorobenzene	NS	NS	NS	NS	NS
1,2-Dichloropropane	NS	NS	NS	NS	NS
1,3,5-Trimethylbenzene	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	NS	NS	NS	NS	NS
2-Butanone (Methyl ethyl ketone) (MEK)	NS	NS	NS	NS	NS
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	NS	NS	NS	NS
Acetone	0.1 U	0.86	0.3 J	1.2 J	0.15
Benzene	0.088 [E]	0.073 [E]	0.09 [E]	0.12 [E]	0.12 [E]
Carbon tetrachloride	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	36 [D,E]	43 [D,E]	16 [D,E]	39 [D,E]	7.3 [D,E]
Ethylbenzene	0.17 [D,E]	0.22 J [D,E]	0.12 J [D,E]	0.26 J [D,E]	0.24 J [D,E]
isopropyl benzene	0.006	0.007	0.001 U	0.008	0.009
Methylene chloride	0.023 [D]	0.037 [D]	0.029 U	0.036 [D]	0.025 U
Naphthalene	0.008	0.013 [D]	0.015 J [D]	0.021 [D]	0.046 [D]
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.5 U	0.36 J [D]	0.13 J	NS	0.19 J
trans-1,2-Dichloroethene	4.5 [D,E]	2.6 [D,E]	1.2 [E]	1.1 [E]	0.62 J [D]
Trichloroethene	66 [C,D,E]	34 [C,D,E]	19 [D,E]	24 [D,E]	7.7 [D,E]
Vinyl chloride	8.9 [C,D,E]	2.8 [C,D,E]	4.8 [C,D,E]	5.6 [C,D,E]	2.6 [C,D,E]
Xylenes (total)	0.52 [D,E]	0.55 [D,E]	0.26 J [D]	0.76 [D,E]	0.47 J [D,E]

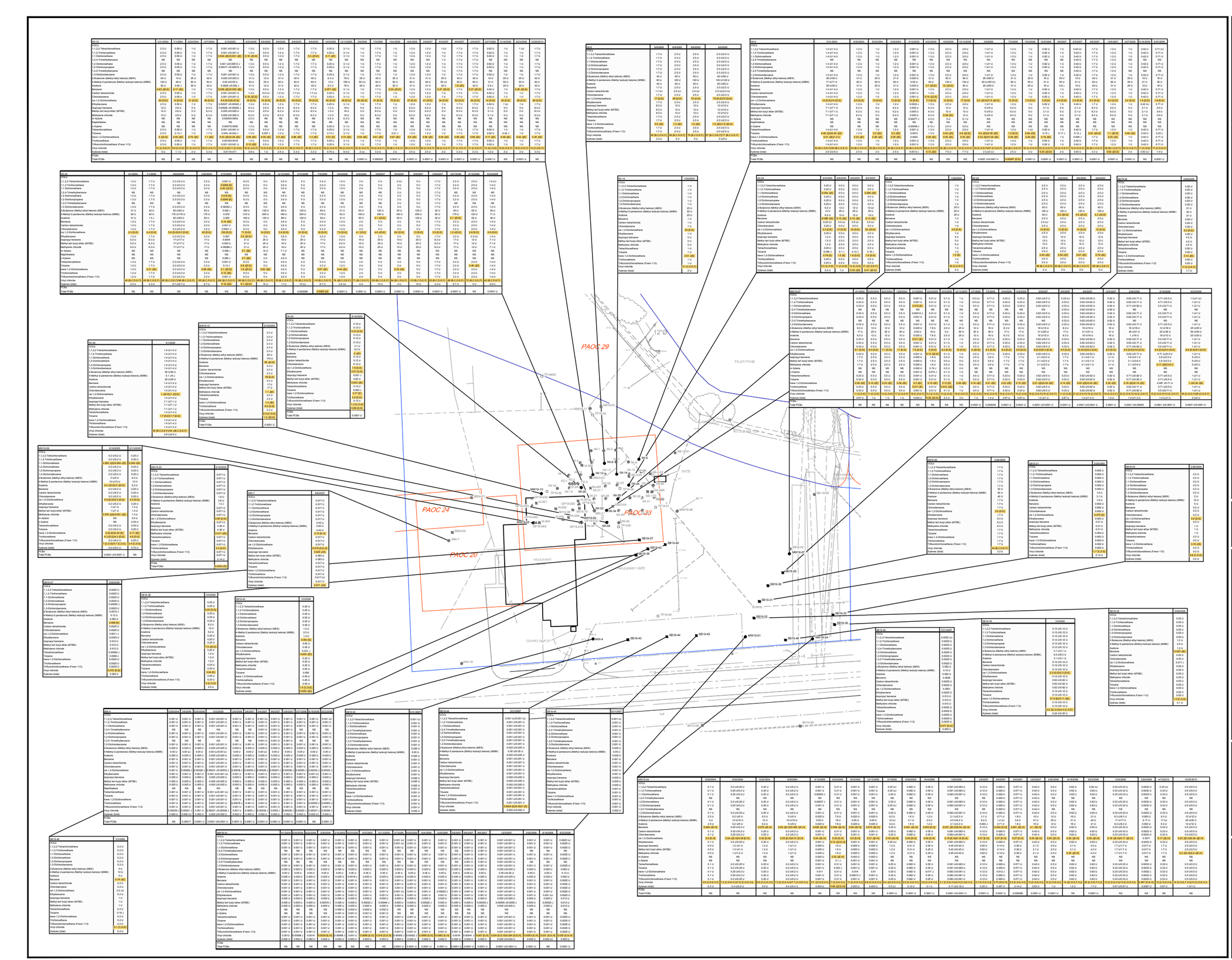
MW-10	3/3/1993
VOCs	
1,1,2,2-Tetrachloroethane	3.3 U
1,1,2-Trichloroethane	3.3 U
1,1-Dichloroethene	3.3 U
1,2-Dichlorobenzene	3.3 U
1,2-Dichloropropane	3.3 U
1,3-Dichlorobenzene	83 U
2-Butanone (Methyl ethyl ketone) (MEK)	83 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	170 U
Acetone	83 U
Benzene	3.3 U
Carbon tetrachloride	3.3 U
Chlorobenzene	3.3 U
cis-1,2-Dichloroethene	90 [D,E]
Ethylbenzene	3.3 U
isopropyl benzene	17 U
Methyl tert butyl ether (MTBE)	17 U
Methylene chloride	17 U
Tetrachloroethene	3.3 U
Toluene	3.3 U
trans-1,2-Dichloroethene	4.5 [D,E]
Trichloroethene	20 [D,E]
Trifluorotrichloroethane (Freon 113)	3.3 U
Vinyl chloride	4.2 [C,D,E]
Xylenes (total)	6.7 U
PCBs	
Total PCBs	NS

MW-11	10/1/2005
VOCs	
1,1,2,2-Tetrachloroethane	0.33 U
1,1,2-Trichloroethane	0.33 U
1,1-Dichloroethane	0.33 U
1,2-Dichlorobenzene	0.33 U
1,2-Dichloropropane	0.33 U
1,3-Dichlorobenzene	0.33 U
2-Butanone (Methyl ethyl ketone) (MEK)	8.3 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	17 U
Acetone	8.3 U
Benzene	0.33 U
Carbon tetrachloride	0.33 U
Chlorobenzene	0.33 U
cis-1,2-Dichloroethene	7.7 [D,E]
Ethylbenzene	0.33 U
isopropyl benzene	1.7 U
Methyl tert butyl ether (MTBE)	1.7 U
Methylene chloride	1.7 U
Tetrachloroethene	0.33 U
Toluene	0.33 U
trans-1,2-Dichloroethene	0.33 U
Trichloroethene	0.19 J [D]
Trifluorotrichloroethane (Freon 113)	0.33 U
Vinyl chloride	8.4 [C,D,E]
Xylenes (total)	0.67 U

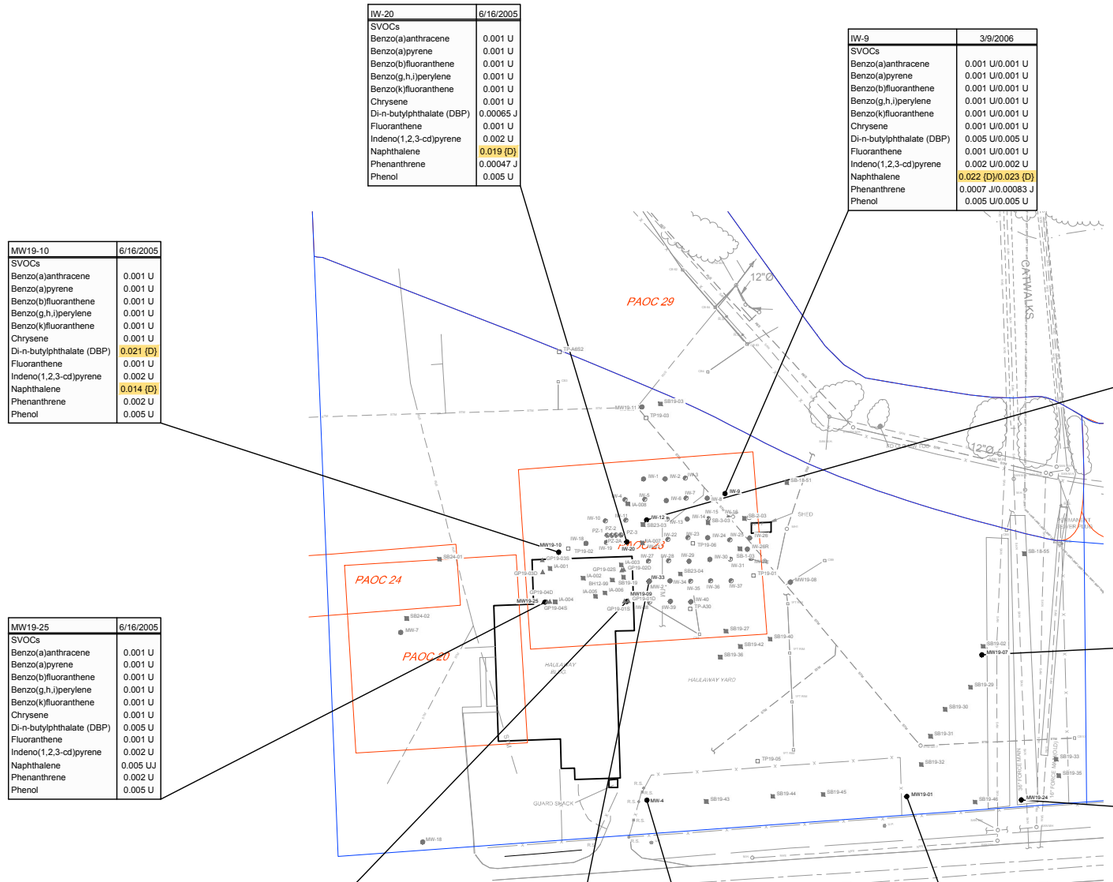
MW-12	10/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	11/25/2002	8/26/2003	12/2/2003
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,1,2-Trichloroethane	0.004 [E]	0.003	0.001 U	0.001 U/0.001 U	0.002	0.003	0.001 U	2 U
1,1-Dichloroethene	0.031 [E]	0.012 [E]	0.001 U	0.001 U/0.001 U	0.003	0.033 [E]	0.007 [E]	2 U
1,2,4-Trimethylbenzene	0.002	0.001 U	0.001 U	0.001U/0.001 U	0.003	0.002	0.001 U	NS
1,2-Dichlorobenzene	0.009 [E]	0.001	0.001	0.001U/0.001 U	0.003	0.004	0.004	2 U
1,3-Dichlorobenzene	0.005 [E]	0.001 U	0.002	0.001U/0.001 U	0.001 U	0.001 U	0.001 U	2 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	NS
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	5 U
Acetone	0.05 U	0.11	0.05 U	0.05 U/0.05 U	0.05 U	0.025 U	0.025 U	50 U
Benzene	0.001 U	0.08 U	0.05 U	0.05 U/0.05 U	0.05 U	0.025 U	0.025 U	100 U
Carbon tetrachloride	0.26	0.49	0.24	0.36/0.4	0.1 U	0.025 U	0.025 U	50 U
Chlorobenzene	0.35 [E]	0.05 [E]	0.088 [E]	0.092 [E]/0.096 [E]	0.11 [E]	0.11 [E]	0.052 [E]	2 U
cis-1,2-Dichloroethene	6.7 [D,E]	4.6 [D,E]	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	2 U
Ethylbenzene	0.2 U	0.2 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	2 U
isopropyl benzene	12 [D,E]	2.8 [D,E]	0.39 [E]	0.001 U/0.001 U	1.5 [D,E]	7.4 [D,E]	19 [D,E]	5.1 [D,E]
Methyl tert butyl ether (MTBE)	1 U/1 U	0.5 U	0.01	0.002/0.002	0.1 U	0.1 U	0.052 [E]	2 U
Methylene chloride	1 U/1 U	0.5 U	0.01	0.002/0.002	0.1 U	0.1 U	0.052 [E]	2 U
m-Xylene	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	0.005 U	0.005 U	0.005	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	10 U
o-Xylene	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	2 U
Toluene	0.17	0.094	0.088	0.04/0.053	0.12	0.21 J	0.11	2 U
trans-1,2-Dichloroethene	0.4 [E]	0.21 [E]	0.066	0.001 U/0.001 U	0.15 [E]	0.6 [E]	1 U	2 U
Trichloroethene	0.012 [E]	0.05 [E]	0.012 [E]	0.001 U/0.001 U	0.095 [E]	0.15 [E]	0.14 [E]	2 U
Trifluorotrichloroethane (Freon 113)	NS	NS	NS	NS	NS	NS	NS	2 U
Vinyl chloride	200 [B,C,D,E,F]	14 [C,D,E,F]	0.42 [E,H]	0.001 U/0.001 U	27 [C,D,E,F]	160 [B,C,D,E,F]	120 [B,C,D,E,F]	48 [B,C,D,E,F]
Xylenes (total)	0.115 [D]	0.363 [D]	0.206	0.0210.02	0.093 [D]	0.195 [D]	0.093 [D]	4 U
PCBs								
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS

MW-13	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	11/26/2002	8/26/2003	12/2/2003
VOCs								
1,1,2,2-Tetrachloroethane	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,1,2-Trichloroethane	0.034 [E]	0.023	0.001 U

DRAFT FOR REVIEW



DRAFT FOR REVIEW



IW-20	6/16/2005
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.00065 J
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.019 {D}
Phenanthrene	0.00047 J
Phenol	0.005 U

IW-9	3/9/2006
SVOCs	
Benzo(a)anthracene	0.001 U/0.001 U
Benzo(a)pyrene	0.001 U/0.001 U
Benzo(b)fluoranthene	0.001 U/0.001 U
Benzo(g,h,i)perylene	0.001 U/0.001 U
Benzo(k)fluoranthene	0.001 U/0.001 U
Chrysene	0.001 U/0.001 U
Di-n-butylphthalate (DBP)	0.005 U/0.005 U
Fluoranthene	0.001 U/0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U/0.002 U
Naphthalene	0.022 {D}/0.023 {D}
Phenanthrene	0.0007 J/0.00083 J
Phenol	0.005 U/0.005 U

IW-12	3/9/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-10	6/16/2005
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.021 {D}
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.014 {D}
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-07	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-25	6/16/2005
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 UJ
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-24	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-09	6/16/2005
SVOCs	
Benzo(a)anthracene	0.001 U/0.001 U
Benzo(a)pyrene	0.001 U/0.001 U
Benzo(b)fluoranthene	0.001 U/0.001 U
Benzo(g,h,i)perylene	0.001 U/0.001 U
Benzo(k)fluoranthene	0.001 U/0.001 U
Chrysene	0.001 U/0.001 U
Di-n-butylphthalate (DBP)	0.005 U/0.005 U
Fluoranthene	0.001 U/0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U/0.002 U
Naphthalene	0.005 U/0.005 U
Phenanthrene	0.002 U/0.002 U
Phenol	0.005 U/0.005 U

IW-33	3/10/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 UJ
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 UJ
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 UJ
Phenanthrene	0.002 U
Phenol	0.005 U

MW-4	3/9/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-01	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- GROUNDWATER SOUTHWEST AREA DIVISION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

* - MW2 CONVERTED TO IW-33

GROUNDWATER CRITERIA

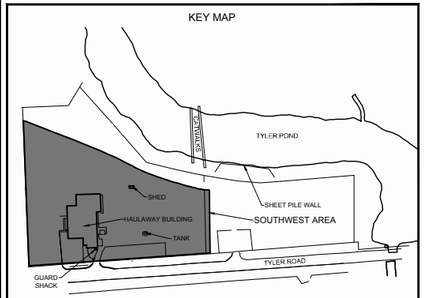
A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION	MW19-10	6/16/2005	DATE
	SVOCs		
	Benzo(a)anthracene	0.001 U	
PARAMETER	Benzo(a)pyrene	0.001 U	
	Benzo(b)fluoranthene	0.001 U	RESULT
	Benzo(g,h,i)perylene	0.001 U	
	Benzo(k)fluoranthene	0.001 U	
	Chrysene	0.001 U	
	Di-n-butylphthalate (DBP)	0.021 {D}	EXCEEDANCE
	Fluoranthene	0.001 U	
	Indeno(1,2,3-cd)pyrene	0.002 U	
	Naphthalene	0.014 {D}	
	Phenanthrene	0.002 U	
	Phenol	0.005 U	

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - SVOCs
SOUTHWEST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project №: 17303-T05	Report №: 008	Drawing №: FIGURE 3.18

17303-T05(008)GN-WI020 JUL 27/2011

IW-33	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	8/13/2003	3/10/2006	7/5/2006	10/4/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/6/2007	3/27/2008	9/23/2008
Inorganics																
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0209 J	NS
Antimony	NS	NS	NS	NS	NS	NS	0.00053 J	0.00073 J	0.00049 J	0.002 U	0.00053 J	0.00034 J	0.00045 J	0.00029 J	0.00037 J	0.002 U
Arsenic	NS	NS	NS	NS	NS	NS	0.006	0.0103 (D,E)	0.0066	0.0052	0.0063	0.0084	0.0045 J	0.0095	0.0063	0.0075
Barium	NS	NS	NS	NS	NS	NS	0.371	0.323	0.262	0.24	0.316	0.264	0.164	0.106	0.199	0.129
Cadmium	NS	NS	NS	NS	NS	NS	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.005 U	0.0023 J	0.0022 J	0.005 U	0.005 U	0.0022 J	0.0025 J	0.005 U
Cobalt	NS	NS	NS	NS	NS	NS	0.0026 J	0.0018 J	0.0014 J	0.0022 J	0.0023 J	0.0021 J	0.0022 J	0.0023 J	0.0018 J	0.0024 J
Copper	NS	NS	NS	NS	NS	NS	0.0021 U	0.0029	0.0034 U	0.002 U	0.002 U	0.0017 J	0.0025 U	0.002 U	0.002 U	0.0011 J
Iron	NS	NS	NS	NS	NS	1.51 (E)	NS	20.9 (E)	NS	NS	NS	NS	NS	10.2 (E)	NS	NS
Iron (dissolved)	NS	NS	NS	NS	NS	1.26 (E)	NS	19.7 (E)	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NS	NS	NS	NS	NS	NS	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	1.07 (E)	3.66 (E)	21 (D,E)	20.6 (D,E)/24.2 (D,E)	9.44 (D,E)	18.1 (D,E)	14.2 (D,E)	11.4 (D,E)	10.4 (D,E)	9.03 (D,E)	10.7 (D,E)	8.69 (D,E)	6.35 (E)	7.49 (D,E)	6.3 (E)	5.86 (E)
Manganese (dissolved)	NS	NS	NS	NS	NS	18.1 (D,E)	NS	10.8 (D,E)	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NS	NS	NS	NS	NS	NS	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00015 J(D)	0.0002 U	0.0002 U	0.0002 U
Nickel	NS	NS	NS	NS	NS	NS	0.0192 J	0.0184 J	0.0247	0.0241	0.0166 J	0.025	0.0238	0.0269	0.0122 J	0.027
Selenium	NS	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	NS	NS	NS	NS	NS	NS	0.0002 U	0.00009 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	NS	NS	NS	NS	NS	0.0089	0.0062	0.0039 J	0.0037 J	0.0065	0.0034 J	0.0056	0.0044	0.0037 J	0.0026 J
Zinc	NS	NS	NS	NS	NS	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.0142 U	0.0141	0.0111 U	0.015 U	0.0113	0.0282

IW-12	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	3/9/2006	7/5/2006	10/4/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/6/2007	3/27/2008	9/23/2008
Inorganics															
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS
Antimony	NS	NS	NS	NS	NS	0.0006 J	0.00097 J	0.00054 J	0.002 U	0.00052 J	0.00046 J	0.00081 J	0.001 J	0.00027 J	0.002 U
Arsenic	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.0045 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0059	0.005 U	0.0048 J
Barium	NS	NS	NS	NS	NS	0.0979 J	0.0316 J	0.0762 J	0.0874 J	0.133	0.111	0.121	0.175	0.0892 J	0.167
Cadmium	NS	NS	NS	NS	NS	0.001 U	0.001 U	0.001 U	0.001 U	0.00013 J	0.0005 U	0.00018 J	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.005 U	0.0036 J	0.0024 J	0.005 U	0.0042 J	0.0075	0.005 U	0.005 U
Cobalt	NS	NS	NS	NS	NS	0.007 U	0.007 U	0.0015 J	0.0014 J	0.0018 J	0.0018 J	0.003 J	0.0045 J	0.007 U	0.0023 J
Copper	NS	NS	NS	NS	NS	0.0025 U	0.0034	0.0033 U	0.002 U	0.002 U	0.0014 J	0.0021 U	0.002 U	0.0004 J	0.00097 J
Iron	NS	NS	NS	NS	NS	NS	0.528 (E)	NS	NS	NS	NS	NS	7 (E)	NS	NS
Iron (dissolved)	NS	NS	NS	NS	NS	NS	1.28 (E)	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NS	NS	NS	NS	NS	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.63 (E)	4.74 (E)	8.43 (D,E)	160 (D,E)	2 (E)	15.7 (D,E)	12.8 (D,E)	13.9 (D,E)	12.5 (D,E)	12.1 (D,E)	11.8 (D,E)	9.09 (D,E)	11.5 (D,E)	8.88 (D,E)	7.58 (D,E)
Manganese (dissolved)	NS	NS	NS	NS	NS	NS	11.7 (D,E)	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NS	NS	NS	NS	NS	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00014 J(D)	0.0002 U	0.0002 U	0.0002 U
Nickel	NS	NS	NS	NS	NS	0.0167 J	0.0158 J	0.0173 J	0.0162 J	0.015 J	0.0139 J	0.0125 J	0.0127 J	0.0088 J	0.0101 J
Selenium	NS	NS	NS	NS	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	NS	NS	NS	NS	NS	0.0002 U	0.00014 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	NS	NS	NS	NS	0.0048	0.0048	0.005	0.0046	0.0048	0.0038 J	0.0044	0.0049	0.0023 J	0.0025 J
Zinc	NS	NS	NS	NS	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	0.0074 J	0.01 U	0.01 U	0.0093 J	0.0063 J

IW-9	12/13/2001	1/14/2002	3/14/2002	5/6/2002	7/22/2002	8/13/2003	3/9/2006	7/5/2006	10/3/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/6/2007	3/27/2008	9/23/2008
Inorganics																
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	
Antimony	NS	NS	NS	NS	NS	NS	0.00018 J/0.00016 J	0.0011 J	0.00011 J	0.002 U	0.0022	0.00013 J	0.000086 J	0.002 U	0.002 U	0.002 U
Arsenic	NS	NS	NS	NS	NS	NS	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0032 J	0.005 U
Barium	NS	NS	NS	NS	NS	NS	0.0864 J/0.0863 J	0.135	0.0912 J	0.0742 J	0.12	0.0839 J	0.111	0.121	0.118	0.0851 J
Cadmium	NS	NS	NS	NS	NS	NS	0.001 U/0.001 U	0.001 U	0.001 U	0.001 U	0.00051	0.0005 U	0.00014 J	0.0005 U	0.0005 U	0.0005 U
Chromium	NS	NS	NS	NS	NS	NS	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0029 J	0.005 U
Cobalt	NS	NS	NS	NS	NS	NS	0.007 U/0.007 U	0.007 U	0.007 U	0.007 U	0.0022 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	NS	NS	NS	NS	NS	NS	0.002 U/0.002 U	0.0018 J	0.002 U	0.002 U	0.0041 U	0.00089 J	0.002 U	0.002 U	0.002 U	0.00038 J
Iron	NS	NS	NS	NS	NS	0.0418	NS	4.49 (E)	NS	NS	NS	NS	NS	3.4 (E)	NS	NS
Iron (dissolved)	NS	NS	NS	NS	NS	0.1 U	NS	3.61 (E)	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NS	NS	NS	NS	NS	NS	0.003 U/0.003 U	0.0021 J	0.003 U	0.003 U	0.0018 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.375 (E)	4.92 (E)	20 (D,E)	6.51 (D,E)	2.04 (E)/2.2 (E)	10.3 (D,E)	6.14 (E)/6.01 (E)	5.75 (E)	5.11 (E)	4.68 (E)	5.42 (E)	5.26 (E)	3.95 (E)	4.12 (E)	3.66 (E)	3.4 (E)
Manganese (dissolved)	NS	NS	NS	NS	NS	10.2 (D,E)	NS	5.85 (E)	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NS	NS	NS	NS	NS	NS	0.0002 U/0.00019 J(D)	0.0002 U	0.0002 U	0.0002 U	0.00011 J(D)	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	NS	NS	NS	NS	NS	NS	0.003 J/0.0029 J	0.0034 J	0.0018 J	0.002 J	0.0181 J	0.0032 J	0.0023 J	0.02 U	0.0065 J	0.02 U
Selenium	NS	NS	NS	NS	NS	NS	0.005 U/0.005 U	0.005 U	0.0024 J	0.005 U	0.0008 J	0.00077 J	0.002 U	0.002 U	0.002 U	0.002 U
Silver	NS	NS	NS	NS	NS	NS	0.0002 U/0.0002 U	0.00016 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	NS	NS	NS	NS	NS	NS	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.0078	0.004 U	0.004 U	0.004 U	0.003 J	0.004 U
Zinc	NS	NS	NS	NS	NS	NS	0.02 U/0.02 U	0.02 U	0.02 U	0.02 U	0.336	0.0139	0.01 U	0.01 U	0.0807	0.012

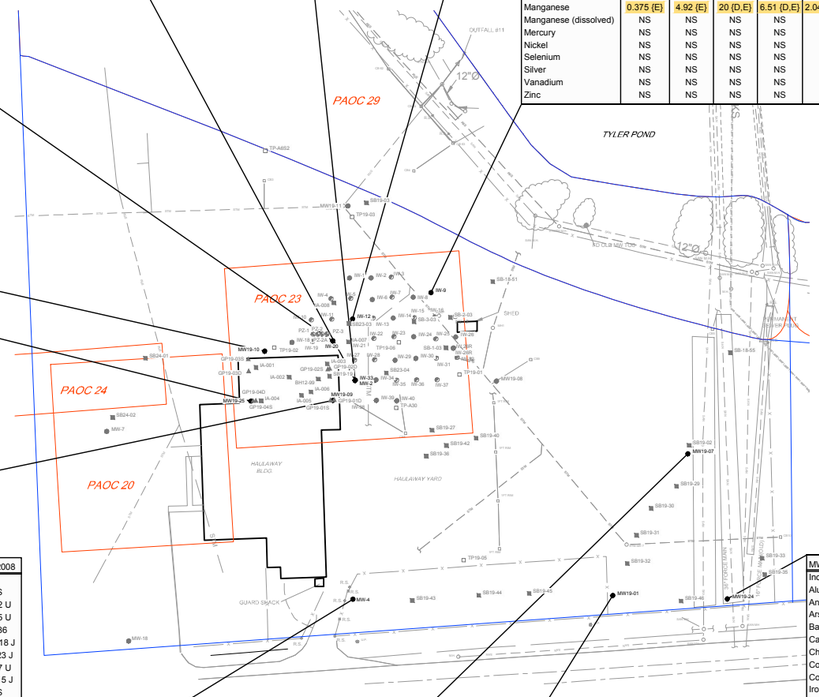
MW19-10	6/16/2005
Inorganics	
Antimony	0.0011 J
Arsenic	0.0079
Barium	0.967
Cadmium	0.001 U
Chromium	0.0043 J
Cobalt	0.007 U
Copper	0.0023 U
Lead	0.003 U
Manganese	0.918 (E)
Mercury	0.0002 U
Nickel	0.02 U
Selenium	0.005 U
Silver	0.0002 U
Vanadium	0.004 U
Zinc	0.02 U

MW19-25	6/16/2005
Inorganics	
Antimony	0.00055 J
Arsenic	0.005 U
Barium	0.217
Cadmium	0.001 U
Chromium	0.005 U
Cobalt	0.0026 J
Copper	0.0025 U
Lead	0.003 U
Manganese	0.151 (E)
Mercury	0.0002 U
Nickel	0.0061 J
Selenium	0.0025 J
Silver	0.0002 U
Vanadium	0.004 U
Zinc	0.02 U

IW-20	6/16/2005
Inorganics	
Antimony	0.0014 J
Arsenic	0.0059
Barium	0.69
Cadmium	0.001 U
Chromium	0.004 J
Cobalt	0.0025 J
Copper	0.002 U
Lead	0.003 U
Manganese	12.1 (D,E)
Mercury	0.0002 U
Nickel	0.0015 J
Selenium	0.005 U
Silver	0.000057 J
Vanadium	0.0064
Zinc	0.02 U

MW19-09	6/16/2005
Inorganics	
Antimony	0.00046 J/0.00039 J
Arsenic	0.005 U/0.005 U
Barium	0.232/0.238
Cadmium	0.001 U/0.00049 J
Chromium	0.005 U/0.005 U
Cobalt	0.003 J/0.0033 J
Copper	0.0039 U/0.0081
Lead	0.003 U/0.003 U
Manganese	0.243 (E)/0.245 (E)
Mercury	0.0002 U/0.0002 U
Nickel	0.0087 J/0.0082 J
Selenium	0.005 U/0.005 U
Silver	0.0002 U/0.0002 U
Vanadium	0.004 U/0.004 U
Zinc	0.02 U/0.02 U

MW-2 *	3/21/1997
Inorganics	
Lead	0.0050 U



MW-4	3/9/2006	6/29/2006	10/3/2006	12/6/2006	3/8/2007	6/6/2007	9/6/2007	12/6/2007	3/27/2008	9/23/2008
Inorganics										
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.0241 J	NS
Antimony	0.00025 J	0.00041 J	0.00025 J/0.00024 J	0.002 U	0.00033 J	0.00034 J	0.00031 J	0.00021 J	0.00014 J	0.002 U
Arsenic	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	0.272	0.312	0.365/0.372	0.362	0.373	0.327	0.298	0.37	0.332	0.386
Cadmium	0.001 U	0.001 U	0.001 U/0.001 U	0.001 U	0.00018 J	0.00038 J	0.00015 J	0.00016 J	0.0005 U	0.00018 J
Chromium	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.003 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0023 J
Cobalt	0.007 U	0.007 U	0.007 U/0.007 U	0.007 U	0.0016 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0027 U	0.002 U	0.0032 U/0.0031 U	0.002 U	0.0036 U	0.0035	0.0027 U	0.0024 U	0.00042 J	0.0015 J
Iron	NS	NS	NS	NS	NS	NS	NS	0.41 (E,H)	NS	NS
Lead	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.436 (E,H)	0.394 (E,H)	0.412 (E,H)/0.422 (E,H)	0.392 (E,H)	0.385 (E,H)	0.392 (E,H)	0.339 (E,H)	0.418 (E,H)	0.344 (E,H)	0.339 (E,H)
Mercury	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.0046 J	0.0044 J	0.0058 J/0.005 J	0.0048 J	0.02 U	0.0053 J	0.0045 J	0.0065 J	0.02 U	0.0065 J
Selenium	0.005 U	0.0036 J	0.005 U/0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.0111 J	0.0105 J/0.007 J	0.02 U	0.0251 U	0.0498	0.017 U	0.014 U	0.0088 J	0.0076 J

MW19-24	3/7/2006	6/29/2006	10/4/2006	12/6/2006	3/9/2007	6/6/2007	9/6/2007	12/5/2007	3/25/2008	9/23/2008
Inorganics										
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.0242 J	NS
Antimony	0.00023 J	0.00037 J	0.0007 J	0.002 U/0.002 U	0.00029 J	0.00025 J	0.00035 J	0.00015 J	0.002 U	0.002 U
Arsenic	0.005 U	0.005 U	0.0066	0.005 U/0.0051	0.005 U	0.0045 J	0.005 U	0.005 U	0.0059	0.0065
Barium	0.387	0.458	0.703	0.557/0.61	0.718	0.465	0.479	0.561	0.465	0.412
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U/0.001 U	0.0005 U	0.0005 U	0.00051	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.0019 J	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U	0.007 U	0.007 U/0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0021	0.002 U	0.002 U	0.002 U/0.002 U	0.002 U	0.0013 J	0.0042	0.0009 J	0.002 U	0.00051 J
Iron	NS	NS	NS	NS	NS	NS	NS	11.7 (E,H)	7.96 (E,H)	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.237 (E,H)	0.263 (E,H)	0.436 (E,H)	0.281 (E,H)/0.31 (E,H)	0.552 (E,H)	0.327 (E,H)	0.303 (E,H)	0.367 (E,H)	0.284 (E,H)	0.241 (E,H)
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.003 J	0.0028 J	0.0056 J	0.0042 J/0.0043 J	0.02 U	0.0017 J	0.0033 J	0.02 U	0.02 U	0.02 U
Selenium	0.005 U	0.005 U	0.005 U	0.005 U/0.0026 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ/0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.003 J	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.02 U	0.02 U	0.02 U/0.02 U	0.0246 U	0.0145	0.0205	0.0156	0.0027 J	0.0073 J

MW19-07	3/7/2006	7/5/2006	10/4/2006	12/6/2006	3/8/2007	6/5/2007	9/6/2007	12/5/2007	3/26/2008	6/18/2008	9/23/2008
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U/0.05 U	NS	NS
Antimony	0.001 J	0.00039 J	0.00048 J	0.002 U	0.00031 J/0.00029 J	0.00048 J	0.00023 J/0.00024 J	0.0002 J	0.00014 J/0.002 U	0.00017 J/0.00017 J	0.002 U/0.002 U
Arsenic	0.005 U	0.0044 J	0.0054	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U/0.005 U	0.0058	0.005 U/0.005 U	0.005 U/0.0036 J	0.0037 J/0.0047 J
Barium	0.264	0.31	0.436	0.197	0.375/0.386	0.276	0.35/0.37	0.443	0.306/0.295	0.221/0.232	0.249/0.248
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U/0.0005 U	0.0005 U	0.0005 U/0.0005 U	0.0005 U	0.0005 U/0.0005 U	0.0005 U/0.0005 U	0.0005 U/0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U/0.005 U	0.0037 J/0.005 U	0.005 U/0.005 U
Cobalt	0.0021 J	0.0016 J	0.0022 J	0.007 U	0.0036 J/0.0035 J	0.007 U	0.0017 J/0.0019 J	0.003 J	0.007 U/0.0018 J	0.007 U/0.007 U	0.0018 J/0.0017 J
Copper	0.0015 J	0.002	0.002 U	0.002 U	0.002 U/0.002 U	0.002 U	0.002 U/0.002 U	0.0013 J	0.002 U/0.002 U	0.002 U/0.002 U	0.00076 J/0.00099 J
Iron	NS	2.44 (E)	NS	NS	NS	NS	NS	3.06 (E)	2.51 (E)/2.41 (E)	2 (E)/1.9 (E)	NS
Iron (dissolved)	NS	1.34 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U/0.003 U	0.003 U/0.003 U	0.003 U/0.003 U
Manganese	0.182 (E)	0.126 (E)	0.145 (E)	0.0766 (E)	0.211 (E)/0.201 (E)	0.1 (E)	0.138 (E)/0.159 (E)	0.268 (E)	0.143 (E)/0.153 (E)	0.182 (E)/0.163 (E)	0.132 (E)/0.132 (E)
Manganese (dissolved)	NS	0.114 (E)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U/0.0001 J(D)	0.0002 U	0.0002 U/0.0002 U	0.0002 U/0.0003 (D)	0.0002 U/0.0002 U
Nickel	0.004 J	0.0022 J	0.02 U	0.02 U	0.02 U/0.02 U	0.0021 J	0.0021 J/0.0029 J	0.02 U	0.02 U/0.02 U	0.02 U/0.005 J	0.0032 J/0.02 U
Selenium	0.003 J	0.005 U	0.0024 J	0.005 U	0.002 U/0.002 U	0.002 U	0.002 U/0.00071 J	0.002 U	0.002 U/0.002 U	0.002 U/0.002 U	0.002 U/0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U/0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U/0.0002 U	0.0002 U/0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U/0.004 U	0.004 U/0.004 U	0.004 U/0.004 U
Zinc	0.02 U	0.02 U	0.02 U	0.02 U	0.0229 U/0.0223 U	0.01 U	0.01 U/0.01 U	0.0148	0.0046 J/0.0054 J	0.01 U/0.01 U	0.0064 J/0.0049 J

MW19-01	3/7/2006	6/29/2006	10/4/2006	12/6/2006	3/8/2007	6/6/2007	9/6/2007	12/5/2007	3/26/2008	9/23/2008
Inorganics										
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS
Antimony	0.00041 J	0.00038 J	0.00048 J	0.002 U	0.00026 J	0.00024 J	0.00027 J	0.002 U/0.002 U	0.002 U	0.002 U
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U
Barium	0.135	0.131	0.222	0.132	0.154	0.112	0.147	0.286/0.302	0.118	0.239
Cadmium	0.001 U	0.00043 J	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U/0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.0016 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U/0.007 U	0.007 U	0.007 U
Copper	0.0023	0.002 U	0.0029 U	0.002 U	0.0028 U	0.0028	0.0028	0.0012 J/0.0011 J	0.002 U	0.0016 J
Iron	NS	0.174	NS	NS	NS	NS	NS	4.45 (E,H)/4.4 (E,H)	0.408 (E,H)	NS
Iron (dissolved)	NS	0.0326 J	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U	0.003 U
Manganese	0.0084 J	0.0088 J	0.0867 (E,H)	0.0148 J	0.0555 (E,H)	0.0193	0.0288	0.162 (E,H)/0.148 (E,H)	0.0151	0.0418
Manganese (dissolved)	NS	0.0071 J	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U
Nickel	0.0028 J	0.0035 J	0.0021 J	0.0033 J	0.02 U	0.0028 J	0.0019 J	0.02 U/0.02 U	0.02 U	0.0059 J
Selenium	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.00072 J	0.00082 J	0.002 U/0.002 U	0.0014 J	0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.0082 J	0.02 U	0.02 U	0.0138 U	0.0071 J	0.0111 U	0.0098 J/0.0112	0.0037 J	0.0052 J

DRAFT FOR REVIEW

N

0 40 80ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- STORM SEWER
- GROUNDWATER QUADRANT LIMIT
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

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ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

* - MW2 CONVERTED TO IW-33

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

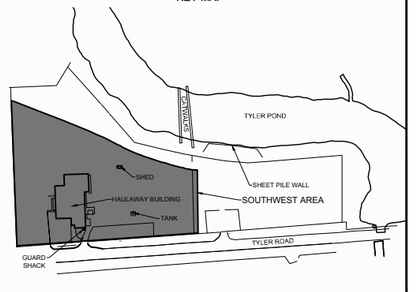
LOCATION — MW19-09 | 6/16/2005 — DATE
PARAMETER — RESULT
EXCEEDANCE

MW19-09	6/16/2005
Inorganics	
Antimony	0.00046 J/0.00039 J
Arsenic	0.005 U/0.005 U
Barium	0.232/0.238
Cadmium	0.001 U/0.00049 J
Chromium	0.005 U/0.005 U
Cobalt	0.003 J/0.0033 J
Copper	0.0039 U/0.0081
Lead	0.003 U/0.003 U
Manganese	0.243 (E)/0.245 (E)
Mercury	0.0002 U/0.0002 U
Nickel	0.0087 J/0.0082 J
Selenium	0.005 U/0.005 U
Silver	0.0002 U/0.0002 U
Vanadium	0.004 U/0.004 U
Zinc	0.02 U/0.02 U

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - INORGANICS SOUTHWEST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS &

DRAFT FOR REVIEW

N

0 30 60ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
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- GROUNDWATER QUADRANT LIMIT
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NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

UJ - THE ANALYTE WAS REPORTED OR QUALIFIED AS NOT DETECTED HOWEVER THE SAMPLE REPORT LIMIT IS QUALIFIED AS AN ESTIMATED VALUE AND MAY BE INACCURATE OR IMPRECISE

J - SOIL SATURATION CONCENTRATION SCREENING LEVELS

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
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H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION — PARAMETER — RESULT — EXCEEDANCE — DATE

SB19-47	5/31/2007
VOCs	
1,1,2,2-Tetrachloroethane	0.02 UJ
1,1,2-Trichloroethane	0.02 U
1,1-Dichloroethene	0.02 U
1,2,4-Trimethylbenzene	0.02 U
1,2-Dichloroethane	0.02 U
1,2-Dichloropropane	0.02 U
1,3,5-Trimethylbenzene	0.02 U
1,3-Dichlorobenzene	0.02 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	1 U
Acetone	0.5 U
Benzene	0.02 U
Carbon tetrachloride	0.02 U
Chlorobenzene	0.02 U
cis-1,2-Dichloroethene	0.49 (E)
Ethylbenzene	0.02 U
Isopropyl benzene	0.1 U
Methyl tert butyl ether (MTBE)	0.1 U
Methylene chloride	0.1 U
Tetrachloroethene	0.02 U
Toluene	0.02 U
trans-1,2-Dichloroethene	0.026
Trichloroethene	0.02 U
Trifluorotrichloroethane (Freon 113)	0.02 U
Vinyl chloride	0.64 (D,E)
Xylenes (total)	0.04 U

SB19-34	2/28/2006
VOCs	
1,1,2,2-Tetrachloroethane	0.1 U
1,1,2-Trichloroethane	0.1 U
1,1-Dichloroethene	0.1 U
1,2-Dichloroethane	0.1 U
1,2-Dichloropropane	0.1 U
1,3-Dichlorobenzene	0.1 U
2-Butanone (Methyl ethyl ketone) (MEK)	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	5 U
Acetone	2.5 U
Benzene	0.1 U
Carbon tetrachloride	0.1 U
Chlorobenzene	0.1 U
cis-1,2-Dichloroethene	3.9 (D,E)
Ethylbenzene	0.1 U
Isopropyl benzene	0.5 U
Methyl tert butyl ether (MTBE)	0.5 U
Methylene chloride	0.5 U
Tetrachloroethene	0.1 U
Toluene	0.1 U
trans-1,2-Dichloroethene	0.21 (E)
Trichloroethene	0.1 U
Trifluorotrichloroethane (Freon 113)	0.1 U
Vinyl chloride	2.8 (C,D,E)
Xylenes (total)	0.2 U

MW-5	4/24/1996	6/26/2003	12/3/2003	3/1/2006
VOCs				
1,1,2,2-Tetrachloroethane	NS	0.001 U	0.2 U	0.12 U
1,1,2-Trichloroethane	NS	0.001 U	0.2 U	0.12 U
1,1-Dichloroethene	0.1 U	0.013 (E)	0.2 U	0.12 U
1,2,4-Trimethylbenzene	NS	0.001 U	NS	NS
1,2-Dichloroethane	NS	0.001 U	0.2 U	0.12 U
1,2-Dichloropropane	NS	0.001 U	0.2 U	0.12 U
1,3,5-Trimethylbenzene	NS	0.001 U	NS	NS
1,3-Dichlorobenzene	NS	0.001 U	0.2 U	0.12 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS	0.025 U	5 U	3.1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	0.025 U	5 U	3.1 U
Acetone	NS	0.025 U	5 U	3.1 U
Benzene	NS	0.001 U	0.2 U	0.12 U
Carbon tetrachloride	NS	0.001 U	0.2 U	0.12 U
Chlorobenzene	NS	0.001 U	0.2 U	0.12 U
cis-1,2-Dichloroethene	1.4 (D,E)	3.4 (D,E)	4 (D,E)	3 (D,E)
Ethylbenzene	NS	0.001 U	0.2 U	0.12 U
Isopropyl benzene	NS	0.005 U	1 U	0.62 U
Methyl tert butyl ether (MTBE)	NS	NS	1 U	0.62 U
Methylene chloride	NS	0.005 U	1 U	0.62 U
Naphthalene	NS	0.005 U	NS	NS
Tetrachloroethene	NS	0.001 U	0.2 U	0.12 U
Toluene	NS	0.001 U	0.2 U	0.12 U
trans-1,2-Dichloroethene	0.1 U	0.2 U	0.12 (JE)	0.096 J
Trichloroethene	0.1 U	0.001 U	0.2 U	0.12 U
Trifluorotrichloroethane (Freon 113)	NS	NS	0.2 U	0.12 U
Vinyl chloride	2.3 (C,D,E)	7.2 (C,D,E)	5.3 (C,D,E)	3.2 (C,D,E)
Xylenes (total)	NS	0.003 U	0.4 U	0.25 U

MW-03	12/1/2003	4/1/2004	6/30/2004	9/22/2004	12/8/2004	3/10/2005	6/23/2005	10/5/2005	12/13/2005	3/7/2006	7/7/2006	10/4/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/5/2007	3/25/2008
VOCs																		
1,1,2,2-Tetrachloroethane	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
1,1,2-Trichloroethane	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
1,1-Dichloroethene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
1,2,4-Trimethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
1,2-Dichloropropane	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
1,3,5-Trimethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	1.2 U	0.83 U	0.83 U	1.9 U	1.7 U	0.025 U	1.6 U	4.2 U	3.1 UI/3.1 U	1.2 UJ	1.7 UJ	0.83 U	1.2 U	1.6 U	1 U	1.4 U	2.1 U	1.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	2.5 U	1.7 U	1.7 U	3.8 U	3.3 U	0.05 U	3.1 U	8.3 U	6.3 UI/6.3 U	2.5 UJ	3.3 UJ	1.7 U	2.5 U	3.1 U	2 U	2.8 U	4.2 U	2.5 U
Acetone	1.2 U	0.83 U	0.83 U	1.9 U	1.7 U	0.025 U	1.6 U	0.85 (J,H)	3.1 UI/3.1 U	1.2 UJ	1.7 UJ	0.83 U	1.2 U	1.6 U	1 U	1.4 U	2.1 U	1.2 U
Benzene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Carbon tetrachloride	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Chlorobenzene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
cis-1,2-Dichloroethene	2 (D,E,H)	1 (D,E,H)	0.84 (D,E,H)	1.5 (D,E,H)	1.3 (D,E,H)	0.66 (D,E,H)	0.87 (D,E,H)	1.4 (D,E,H)	1.6 (D,E,H)/1.4 (D,E,H)	0.83 (JD,E,H)	0.94 (JD,E,H)	1.5 (D,E,H)	1.1 (D,E,H)	0.83 (D,E,H)	0.67 (D,E,H)	0.84 (D,E,H)	1.3 (D,E,H)	0.81 (D,E,H)
Ethylbenzene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Isopropyl benzene	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U	0.63 UI/0.63 U	0.25 UJ	0.33 UJ	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U	0.42 U	0.25 U
Methyl tert butyl ether (MTBE)	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U	0.63 UI/0.63 U	0.25 UJ	0.33 UJ	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U	0.42 U	0.25 U
Methylene chloride	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U	0.63 UI/0.63 U	0.25 UJ	0.33 UJ	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U	0.42 U	0.25 U
m-Xylene	NS	NS	NS	NS	NS	0.002 U	0.13 U	0.33 U	0.25 UI/0.25 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
o-Xylene	NS	NS	NS	NS	NS	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Toluene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
trans-1,2-Dichloroethene	0.03 J	0.016 J	0.014 J	0.03 J	0.024 J	0.0008 J	0.025 J	0.04 J	0.038 JI/0.046 J	0.019 J	0.027 J	0.055	0.04 J	0.034 J	0.029 J	0.036 J	0.051 J	0.037 J
Trichloroethene	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Trifluorotrichloroethane (Freon 113)	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U	0.13 UI/0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U	0.083 U	0.05 U
Vinyl chloride	1.6 (C,D,E,H,I)	0.99 (D,E,H)	0.82 (D,E,H)	2 (C,D,E,H,I)	1.8 (C,D,E,H,I)	1.2 (C,D,E,H,I)	0.74 (D,E,H)	2.5 (C,D,E,H,I)	1.6 (C,D,E,H)/1.5 (C,D,E,H,I)	1.1 (C,D,E,H)	1.7 (C,D,E,H,I)	2.6 (C,D,E,H,I)	1.5 (C,D,E,H,I)	1.4 (C,D,E,H,I)	1.3 (C,D,E,H,I)	1.4 (C,D,E,H,I)	2.4 (C,D,E,H,I)	1.3 (C,D,E,H,I)
Xylenes (total)	0.1 U	0.067 U	0.067 U	0.15 U	0.13 U	0.003 U	0.19 U	0.5 U	0.38 UI/0.38 U	0.1 U	0.13 UJ	0.067 U	0.1 U	0.12 U	0.08 U	0.11 U	0.17 U	0.1 U
PCBs																		
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

MW-14	9/17/1996	11/25/2002	1/29/2004	5/28/2004	6/23/2005	10/5/2005	12/13/2005	3/7/2006	7/6/2006	10/4/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/5/2007	3/25/2008	6/18/2008	9/23/2008
VOCs																		
1,1,2,2-Tetrachloroethane	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trimethylbenzene	NS	0.001 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	NS	0.001 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS	0.025 U	0.025 U	0.025 U	0.025 UI/0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	0.05 U	0.05 U	0.05 U	0.05 UI/0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	NS	0.025 U	0.025 U	0.025 U	0.1 U	0.0048 J	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon tetrachloride	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	NS	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.001 U	0.00036 J	0.001 U	0.0018 UI/0.0019	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	NS	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropyl benzene	NS	0.005 U	0.005 U	0.005 UI/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl tert butyl ether (MTBE)	NS	NS	0.005 U	0.005 UI/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	NS	0.005 U	0.005 U	0.005 UI/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Naphthalene	NS	0.005 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	NS	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	NS	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	NS	0.001 U	0.00028 J	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	NS	NS	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U	0.001 U	0.001 UI/0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes (total)	NS	0.003 U	0.002 U	0.002 UI/0.002 U	0.003 U	0.003 U	0.002 U	0.002 UJ	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
PCBs																		
Total PCBs	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

MW-13	9/17/1996	11/25/2002	1/29/2004
VOCs			
1,1,2,2-Tetrachloroethane	NS	0.001 UI/0.001 U	0.001 U
1,1,2-Trichloroethane	NS	0.001 UI/0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 UI/0.001 U	0.001 U
1,2,4-Trimethylbenzene	NS	0.001 UI/0.001 U	NS
1,2-Dichloroethane	NS	0.001 UI/0.001 U	0.001 U
1,2-Dichloropropane	NS	0.001 UI/0.001 U	0.001 U
1,3,5-Trimethylbenzene	NS	0.001 UI/0.001 U	NS
1,3-Dichlorobenzene	NS	0.001 UI/0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS	0.025 UI/0.025 U	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS	0.05 UI/0.05 U	0.05 U
Acetone	NS	0.025 UI/0.025 U	0.025 U
Benzene	NS	0.001 UI/0.001 U	0.001 U
Carbon tetrachloride	NS	0.001 UI/0.001 U	0.001 U
Chlorobenzene	NS	0.001 UI/0.001 U	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.001 UI/0.001 U	0.0029
Ethylbenzene	NS	0.001 UI/0.001 U	0.001 U
Isopropyl benzene	NS	0.005 UI/0.005 U	0.005 U
Methyl tert butyl ether (MTBE)	NS	NS	0.005 U
Methylene chloride	NS	0.005 UI/0.005 U	0.005 U
Naphthalene	NS	0.005 UI/0.005 U	NS
Tetrachloroethene	NS	0.001 UI/0.001 U	0.001 U
Toluene	NS	0.001 UI/0.001 U	0.001 U
trans-1,2-Dichloroethene	0.001 U	0.001 UI/0.001 U	0.001 U
Trichloroethene	0.0013 UI/0.0012 U	0.001 UI/0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	NS	NS	0.001 U
Vinyl chloride	0.001 U	0.001 UI/0.001 U	0.0045 (E,H)
Xylenes (total)	NS	0.003 UI/0.003 U	0.002 U

MW19-04	12/1/2003
VOCs	
1,1,2,2-Tetrachloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichloroethane	0.001 U
1,2-Dichloropropane	0.001 U
1,3-Dichlorobenzene	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.025 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	0.05 U
Acetone	0.025 U
Benzene	0.001 U
Carbon tetrachloride	0.001 U
Chlorobenzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Isopropyl benzene	0.005 U
Methyl tert butyl ether (MTBE)	0.005 U
Methylene chloride	0.005 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Trifluorotrichloroethane (Freon 113)	0.001 U
Vinyl chloride	0.001 U
Xylenes (total)	0.002 U

TW-10	8/12/1996
VOCs	
1,1-Dichloroethene	0.002
cis-1,2-Dichloroethene	7.13 (D,E)
trans-1,2-Dichloroethene	0.301 (E)
Trichloroethene	0.001 U
Vinyl chloride	4.89 (C,D,E)

TW-11	8/12/1996
VOCs	
1,1-Dichloroethene	0.001 U
cis-1,2-Dichloroethene	0.001
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	3.185 (C,D,E)

BH-99	11/19/1999
VOCs	
1,1,2,2-Tetrachloroethane	0.001 U/0.001 U
1,1,2-Trichloroethane	0.001 U/0.001 U
1,1-Dichloroethene	0.001 U/0.001 U
1,2,4-Trimethylbenzene	0.001 U/0.001 U
1,3,5-Trimethylbenzene	0.001 U/0.001 U
1,3-Dichlorobenzene	0.001 U/0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.05 U/0.05 U
Benzene	0.001 U/0.001 U
cis-1,2-Dichloroethene	0.001 U/0.001 U
Ethylbenzene	0.001 U/0.001 U
Naphthalene	0.005 U/0.005 U
Toluene	0.001 U/0.001 U
trans-1,2-Dichloroethene	0.001 U/0.001 U
Trichloroethene	0.001 U/0.001 U
Vinyl chloride	0.001 U/0.001 U
Xylenes (total)	0.003 U/0.003 U

BH-99	11/19/1999
VOCs	
1,1,2,2-Tetrachloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2,4-Trimethylbenzene	0.001 U
1,3,5-Trimethylbenzene	0.001 U
1,3-Dichlorobenzene	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.05 U
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Naphthalene	0.005 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylenes (total)	0.003 U

BH-15-00	5/4/2000
VOCs	
1,1-Dichloroethene	0.001 U
cis-1,2-Dichloroethene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.02 (D,E)

BH-16-00	4/27/2000
VOCs	
1,1-Dichloroethene	0.001 U
cis-1,2-Dichloroethene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U

MW-6U-93	12/10/2003
VOCs	
1,1,2,2-Tetrachloroethane	NS/0.001 U
1,1,2-Trichloroethane	NS/0.001 U
1,1-Dichloroethene	NS/0.001 U
1,2-Dichloroethane	NS/0.001 U
1,2-Dichloropropane	NS/0.001 U
1,3-Dichlorobenzene	NS/0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	NS/0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS/0.05 U
Acetone	NS/0.1 U
Benzene	0.001 UJ/NS
Carbon tetrachloride	0.001 UJ/NS
Chlorobenzene	NS/0.001 U
Ethylbenzene	0.001 UJ/NS
Methylene chloride	0.005 UJ/NS
Tetrachloroethene	0.001 UJ/NS
Toluene	0.001 UJ/NS
Trichloroethene	0.001 UJ/NS
Vinyl chloride	0.001 UJ/NS
Xylenes (total)	0.003 UJ/NS

BH-99	11/19/1999
VOCs	
1,1,2,2-Tetrachloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2,4-Trimethylbenzene	0.001 U
1,3,5-Trimethylbenzene	0.001 U
1,3-Dichlorobenzene	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	0.05 U
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Naphthalene	0.005 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylenes (total)	0.003 U

| GS-7 | 6/22/2005 | 10/5/2005 | 12/14/2005 | 3/10/2006 | 6/28/2006 | 10/3/2006 | 12/7/2006 | 3/12/2007 | 6/6/2007 | 9/7/2007 | 12/6/2007 | 3/26/2008 | 6/19/2008

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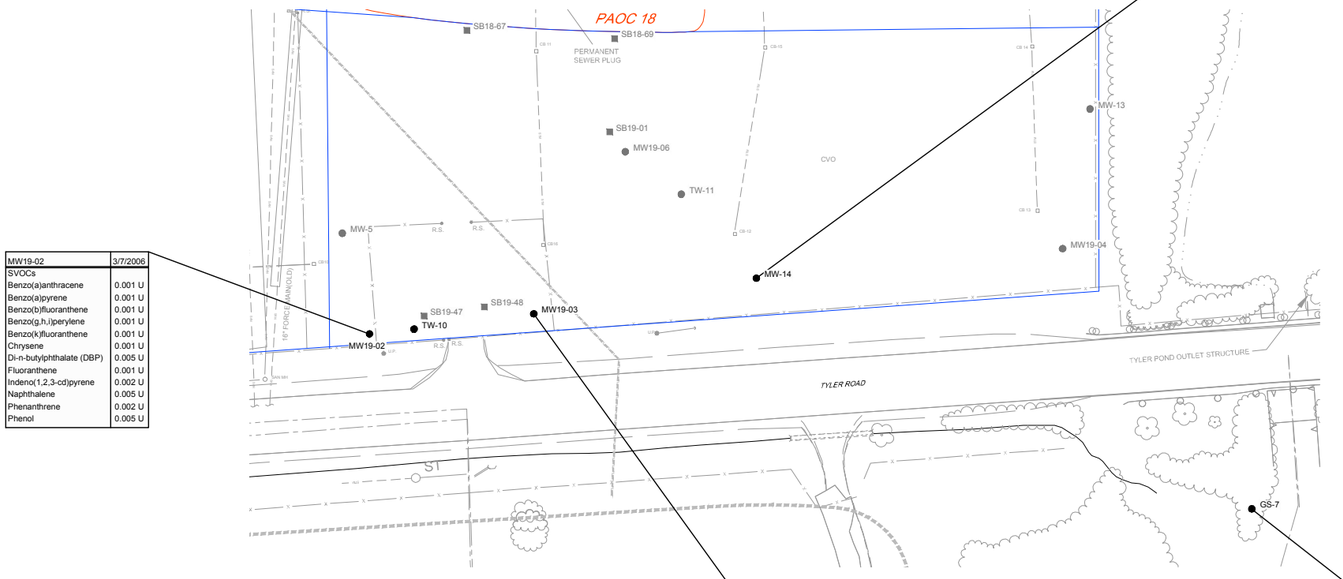


MW-14	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-02	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

MW19-03	3/7/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

GS-7	3/10/2006
SVOCs	
Benzo(a)anthracene	0.001 U
Benzo(a)pyrene	0.001 U
Benzo(b)fluoranthene	0.001 U
Benzo(g,h,i)perylene	0.001 U
Benzo(k)fluoranthene	0.001 U
Chrysene	0.001 U
Di-n-butylphthalate (DBP)	0.005 U
Fluoranthene	0.001 U
Indeno(1,2,3-cd)pyrene	0.002 U
Naphthalene	0.005 U
Phenanthrene	0.002 U
Phenol	0.005 U

N

0 30 60ft

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- GROUNDWATER SOUTHEAST AREA DIVISION
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

GROUNDWATER CRITERIA

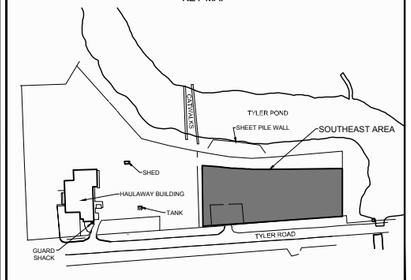
A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

LOCATION →	MW19-02	3/7/2006 ← DATE
PARAMETER →	SVOCs	
	Benzo(a)anthracene	0.001 U
	Benzo(a)pyrene	0.001 U
	Benzo(b)fluoranthene	0.001 U
	Benzo(g,h,i)perylene	0.001 U ← RESULT
	Benzo(k)fluoranthene	0.001 U
	Chrysene	0.001 U
	Di-n-butylphthalate (DBP)	0.005 U
	Fluoranthene	0.001 U
	Indeno(1,2,3-cd)pyrene	0.002 U
	Naphthalene	0.005 U
	Phenanthrene	0.002 U
	Phenol	0.005 U

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - SVOCS
SOUTHEAST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	MAY 2011	
Scale: AS SHOWN	Project N°: 17303-T05	Report N°: 008	Drawing N°: FIGURE 3.21

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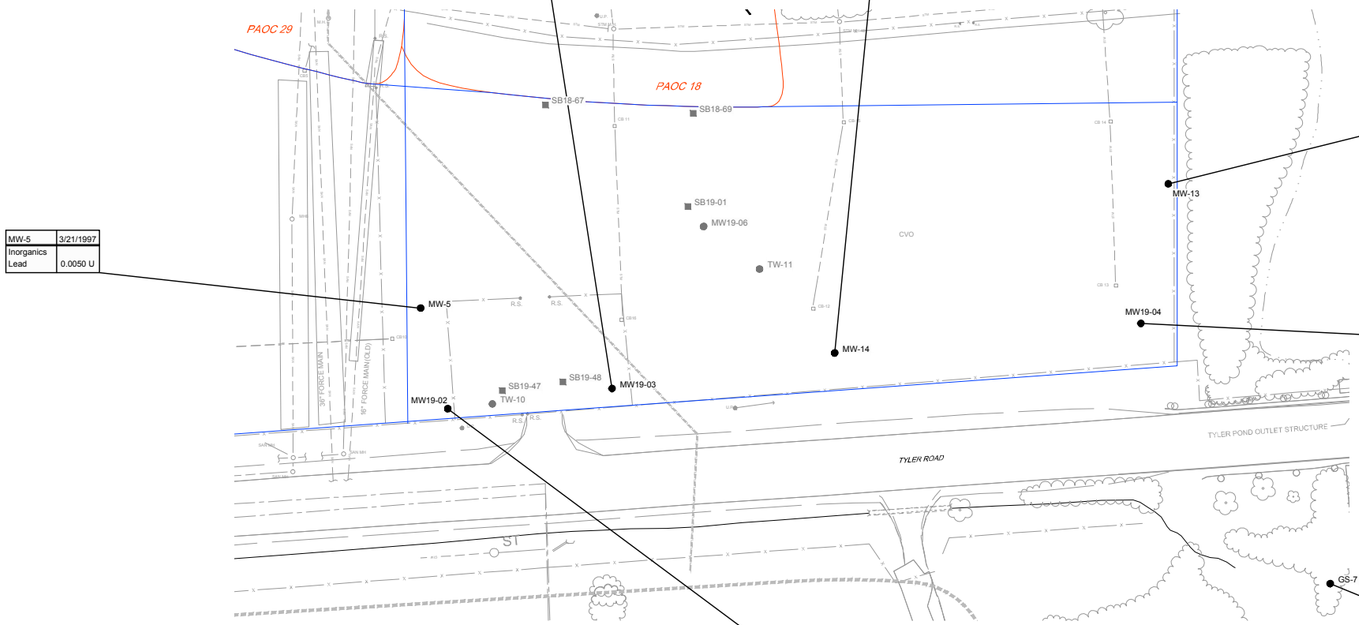
0 30 60ft

MW19-03	3/7/2006	7/7/2006	10/4/2006	12/6/2006	3/9/2007	6/5/2007	9/6/2007	12/5/2007	3/25/2008
Inorganics									
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U
Antimony	0.00025 J	0.00023 J	0.00016 J	0.002 U	0.00011 J	0.00015 J	0.00014 J	0.002 U	0.002 U
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	0.0643 J	0.0685 J	0.075 J	0.0829 J	0.0708 J	0.0754 J	0.0725 J	0.082 J	0.0782 J
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0019 J	0.0014 J	0.0024 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0012 J	0.002 U
Iron	NS	NS	NS	NS	NS	NS	NS	1.2 {E,H}	0.638 {E,H}
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.067 {E,H}	0.183 {E,H}	0.189 {E,H}	0.206 {E,H}	0.28 {E,H}	0.2 {E,H}	0.188 {E,H}	0.253 {E,H}	0.249 {E,H}
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000098 J{D}	0.0002 U	0.0002 U
Nickel	0.0029 J	0.0019 J	0.0016 J	0.0028 J	0.02 U	0.0027 J	0.0016 J	0.02 U	0.02 U
Selenium	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.0069 J	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U	0.0043 J	0.004 J

MW-14	3/7/2006	7/6/2006	10/4/2006	12/6/2006	3/8/2007	6/5/2007	9/6/2007	12/5/2007	3/25/2008	9/23/2008
Inorganics										
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.0312 J	NS
Antimony	0.00029 J	0.00051 J	0.00031 J	0.002 U	0.00028 J	0.00027 J	0.00023 J	0.00019 J	0.00013 J	0.002 U
Arsenic	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	0.047 J	0.0429 J	0.0532 J	0.047 J	0.0399 J	0.0407 J	0.0455 J	0.0642 J	0.0485 J	0.0547 J
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00013 J	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.002	0.0017 J	0.0023 U	0.0026 U	0.0037 U	0.006 U	0.002 U	0.0019 J	0.00071 J	0.0015 J
Iron	NS	0.1 U	NS	NS	NS	NS	NS	NS	0.1 U	NS
Iron (dissolved)	NS	0.1 U	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.0316	0.0074 J	0.109 {E,H}	0.0937 {E,H}	0.0488	0.0956 {E,H}	0.0499	0.0781 {E,H}	0.0954 {E,H}	0.0906 {E,H}
Manganese (dissolved)	NS	0.015 U	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00015 J{D}	0.0002 U	0.0002 U	0.0002 U
Nickel	0.0022 J	0.02 U	0.02 U	0.0022 J	0.02 U	0.0025 J	0.02 U	0.02 U	0.02 U	0.0033 J
Selenium	0.0033 J	0.0033 J	0.005 U	0.0033 J	0.003	0.0029 U	0.0011 J	0.002 U	0.0024	0.002 U
Silver	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.0202 U	0.0102 J	0.017 J	0.02 U	0.0134 U	0.01 U	0.01 U	0.0108	0.0094 J	0.0103

MW-13	8/8/2005
Inorganics	
Antimony	0.00013 J
Arsenic	0.005 U
Barium	0.0263 J
Cadmium	0.001 U
Chromium	0.005 U
Cobalt	0.007 U
Copper	0.00052 J
Cyanide (total)	0.010 U/NS
Lead	0.003 U
Manganese	0.0089 J
Mercury	0.0002 U
Nickel	0.02 U
Selenium	0.005 U
Silver	0.0002 U
Vanadium	0.004 U
Zinc	0.02 U



MW-5	3/21/1997
Inorganics	
Lead	0.0050 U

MW19-04	8/8/2005
Inorganics	
Antimony	0.0002 J/0.00015 J
Arsenic	0.005 U/0.005 U
Barium	0.0278 J/0.0251 J
Cadmium	0.001 U/0.001 U
Chromium	0.005 U/0.005 U
Cobalt	0.007 U/0.007 U
Copper	0.0008 J/0.00072 J
Cyanide (total)	0.010 U/0.010 U/NS
Lead	0.003 U/0.003 U
Manganese	0.015 U/0.015 U
Mercury	0.0002 U/0.0002 U
Nickel	0.0029 J/0.02 U
Selenium	0.005 U/0.005 U
Silver	0.0002 U/0.0002 U
Vanadium	0.004 U/0.004 U
Zinc	0.02 U/0.02 U

MW19-02	3/7/2006	6/30/2006	7/5/2006	10/4/2006	12/6/2006	3/9/2007	6/6/2007	9/7/2007	12/5/2007	3/26/2008	9/23/2008
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS
Antimony	0.0001 J	0.002 U/0.00012 J	NS	0.00023 J	0.002 U	0.00038 J/0.00022 J	0.0003 J/0.0002 J	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	0.005 U	0.005 U/0.005 U	NS	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	0.0816 J	0.0676 J/0.0641 J	NS	0.213	0.14	0.125/0.112	0.0724 J/0.0728 J	0.106	0.129	0.1	0.136
Cadmium	0.001 U	0.001 U/0.001 U	NS	0.001 U	0.001 U	0.0005 U/0.0005 U	0.0005 U/0.0005 U	0.00011 J	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U/0.005 U	NS	0.005 U	0.005 U	0.005 U/0.005 U	0.005 U/0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.007 U/0.007 U	NS	0.0017 J	0.007 U	0.007 U/0.007 U	0.007 U/0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0014 J	0.002 U/0.002 U	NS	0.002 U	0.002 U	0.002 U/0.002 U	0.00068 J/0.00076 J	0.002 U	0.00098 J	0.002 U	0.00072 J
Iron	NS	0.597 {E,H}/0.615 {E,H}	NS	NS	NS	NS	NS	NS	1.36 {E,H}	0.979 {E,H}	NS
Iron (dissolved)	NS	0.593 {E,H}	0.578 {E,H}	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.003 U	0.003 U/0.003 U	NS	0.003 U	0.003 U	0.003 U/0.003 U	0.003 U/0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	0.133 {E,H}	0.177 {E,H}/0.169 {E,H}	NS	0.304 {E,H}	0.14 {E,H}	0.204 {E,H}/0.183 {E,H}	0.0898 {E,H}/0.0895 {E,H}	0.174 {E,H}	0.184 {E,H}	0.125 {E,H}	0.179 {E,H}
Manganese (dissolved)	NS	0.163 {E,H}	0.143 {E,H}	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.0002 U	0.000099 J{D}/0.0002 U	NS	0.0002 U	0.0002 U	0.00012 J{D}/0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.02 U	0.0025 J/0.0025 J	NS	0.0019 J	0.0014 J	0.02 U/0.02 U	0.02 U/0.02 U	0.0026 J	0.02 U	0.02 U	0.02 U
Selenium	0.005 U	0.005 U/0.005 U	NS	0.005 U	0.005 U	0.002 U/0.002 U	0.0017 J/0.0016 J	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 U	0.0002 U/0.0002 U	NS	0.0002 U	0.0002 UJ	0.0002 U/0.0002 U	0.0002 U/0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U/0.004 U	NS	0.004 U	0.004 U	0.004 U/0.004 U	0.004 U/0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.02 U/0.02 U	NS	0.02 U	0.02 U	0.01 U/0.01 U	0.006 J/0.0046 J	0.01 U	0.0065 J	0.01 U	0.0051 J

GS-7	3/10/2006	6/28/2006	10/3/2006	12/7/2006	3/12/2007	6/6/2007	9/7/2007	12/6/2007	3/27/2008	6/19/2008	9/24/2008
Inorganics											
Aluminum	NS	NS	NS	NS	NS	NS	NS	NS	0.05 U	NS	NS
Antimony	0.00033 J	0.00075 J	0.002 U	0.00027 J	0.00021 J	0.00017 J	0.002 U	0.002 U	0.00017 J	0.002 U	0.00014 J
Arsenic	0.0127 {D,E,H}	0.0069	0.016 {D,E,H}	0.0118 {D,E,H}	0.005 U	0.0156 {D,E,H}	0.0138 {D,E,H}	0.0133 {D,E,H}	0.005 U	0.0103 U	0.0087
Barium	0.319	0.0826 J	0.288	0.32	0.167	0.249	0.233	0.29	0.184	0.205	0.196
Cadmium	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	0.005 U	0.005 U	0.005 U	0.0017 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.007 U	0.0033 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	0.0024 U	0.002 U	0.002 U	0.0025 U	0.0033 U	0.0017 J	0.002 U	0.002 U	0.00093 J	0.002 U	0.0013 J
Iron	NS	NS	NS	NS	NS	NS	NS	30.2 {E,H}	NS	NS	NS
Lead	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	6.81 {D,E,H}	1.08 {E,H}	4.33 {E,H}	5.33 {E,H}	3.19 {E,H}	3.28 {E,H}	3.62 {E,H}	4.73 {E,H}	1.99 {E,H}	2.9 {E,H}	1.88 {E,H}
Mercury	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00014 J{D}	0.0002 U
Nickel	0.003 J	0.0065 J	0.0015 J	0.0024 J	0.02 U	0.02 U	0.0015 J	0.02 U	0.02 U	0.02 U	0.02 U
Selenium	0.005 U	0.005 U	0.005 U	0.005 U	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	0.0002 U	0.000053 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.02 U	0.02 U	0.02 U	0.02 U	0.0138 U	0.008 J	0.01 U	0.01 U	0.0049 J	0.01 U	0.01 U

LEGEND

- TREE LINE
- FENCE LINE
- DITCH, STREAM OR RIVER
- FORMER SLUDGE LINE
- STORM SEWER
- GROUNDWATER QUADRANT LIMIT
- PAOC BOUNDARY
- MONITORING WELL
- SOIL BORING
- GAS PROBE
- PIEZOMETER
- TEST PIT

NOTES:

DATA PRESENTED IN THE DATABOXES ARE ONLY FOR THE CONSTITUENTS OF CONCERN (COC) AS DEFINED IN THE REPORT TEXT. IF A COC WAS NEVER SAMPLED AT A LOCATION, THAT COC IS NOT SHOWN IN THE DATABOX AT THAT LOCATION.

ALL CONSTITUENTS OF CONCERN CONCENTRATIONS IN mg/L.

NS - NOT SAMPLED

U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT

J - THE ASSOCIATED VALUE IS QUALIFIED AS AN ESTIMATED QUANTITY

GROUNDWATER CRITERIA

A - ACUTE INHALATION SCREENING LEVEL
B - FLAMMABILITY AND EXPLOSIVITY SCREENING LEVEL
C - GROUNDWATER CONTACT CRITERIA & RBSLS
D - GROUNDWATER SURFACE WATER INTERFACE CRITERIA & RBSLS
E - NON-RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
F - NONRESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS
G - WATER SOLUBILITY
H - RESIDENTIAL DRINKING WATER CRITERIA & RBSLS
I - RESIDENTIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA & RBSLS

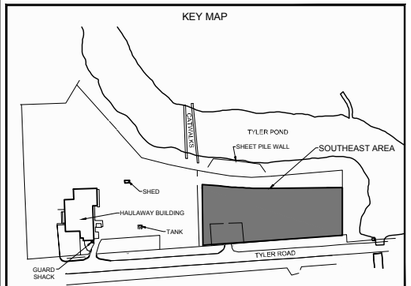
LOCATION / PARAMETER	MW-13	8/8/2005	
	Inorganics		
	Antimony	0.00013 J	
	Arsenic	0.005 U	
	Barium	0.0263 J	
	Cadmium	0.001 U	RESULT
	Chromium	0.005 U	
	Cobalt	0.007 U	
	Copper	0.00052 J	
	Lead	0.003 U	
	Manganese	0.0089	EXCEEDANCE
	Mercury	0.0002 U	
	Nickel	0.02 U	
	Selenium	0.005 U	
	Silver	0.0002 U	
	Vanadium	0.004 U	
	Zinc	0.02 U	

DATE

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

KEY MAP



GROUNDWATER DATA SUMMARY - INORGANICS
SOUTHEAST AREA

SITE SUMMARY REPORT

FORMER GENERAL MOTORS COMPANY
VEHICLE OPERATIONS PROPERTY, YPSILANTI, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
B. LANDALE	M. RADULESCU	JUNE 2011	
Scale: AS SHOWN	Project No: 17303-T05	Report No: 008	Drawing No: FIGURE 3.22

17303-T05(008)GN-WI016 JUN 28/2011

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TYLER POND

SHEET PILE WALL

ABANDONED OUTFALL #12

OUTFALL #13

N

0 10 30ft

TP-A/TP18-04 & TP18-05

TP-B/TP18-06

TP-C

TP-C3

TP-D1 & TP-D2

TP-E

TP-F

TP-G

TP-H

TP18-01

TP18-02

TP-A36

TP-A39

TP-A60

TP-N/TP18-03

TRENCH 1

TRENCH 2

LEGEND

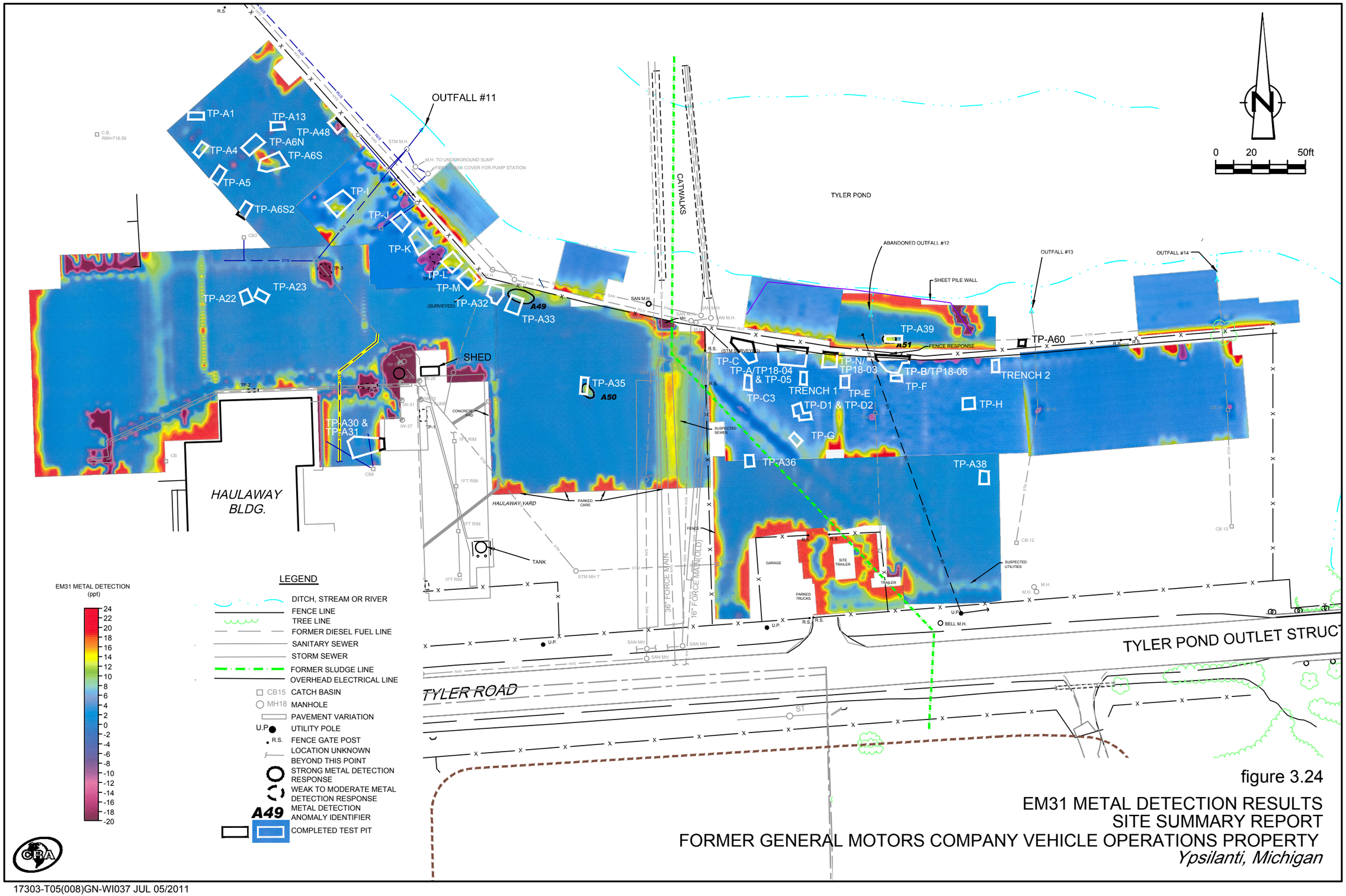
SB18-90	SOIL BORINGS CONTAINING DNAPL
SB18-153	SOIL BORINGS/TEST PITS CONTAINING DEBRIS
	DITCH, STREAM OR RIVER
x x	FENCE LINE
STM	STORM SEWER
CB15	CATCH BASIN
MH18	MANHOLE
R.S.	FENCE GATE POST
TP18-01	TEST PIT LOCATION
	DNAPL DELINEATION
	BURIED REFUSE DELINEATION

figure 3.23

PAOC 18-NAPL AND REFUSE DELINEATION
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI036 JUL 05/2011

DRAFT FOR REVIEW



EM31 METAL DETECTION (ppt)

24 22 20 18 16 14 12 10 8 6 4 2 0 -2 -4 -6 -8 -10 -12 -14 -16 -18 -20

LEGEND

- DITCH, STREAM OR RIVER
- FENCE LINE
- TREE LINE
- FORMER DIESEL FUEL LINE
- SANITARY SEWER
- STORM SEWER
- FORMER SLUDGE LINE
- OVERHEAD ELECTRICAL LINE
- CB15 CATCH BASIN
- MH18 MANHOLE
- PAVEMENT VARIATION
- U.P. UTILITY POLE
- R.S. FENCE GATE POST
- LOCATION UNKNOWN BEYOND THIS POINT
- STRONG METAL DETECTION RESPONSE
- WEAK TO MODERATE METAL DETECTION RESPONSE
- A49 METAL DETECTION ANOMALY IDENTIFIER
- COMPLETED TEST PIT

figure 3.24

EM31 METAL DETECTION RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI037 JUL 05/2011

EM61 METAL DETECTION (mV)
5000
2500
1500
1250
1000
750
500
250
0

LEGEND
- DITCH, STREAM OR RIVER
- FENCE LINE
- TREE LINE
- FORMER DIESEL FUEL LINE
- SANITARY SEWER
- STORM SEWER
- FORMER SLUDGE LINE
- OVERHEAD ELECTRICAL LINE
- CB15 CATCH BASIN
- MH18 MANHOLE
- PAVEMENT VARIATION
- U.P. UTILITY POLE
- R.S. FENCE GATE POST
- LOCATION UNKNOWN BEYOND THIS POINT
- STRONG METAL DETECTION RESPONSE
- WEAK TO MODERATE METAL DETECTION RESPONSE
- METAL DETECTION ANOMALY IDENTIFIER
- COMPLETED TEST PIT

0 20 50ft

TP-A1 TP-A13 TP-A48 TP-A6N TP-A4 TP-A6S TP-A5 TP-A6S2 TP-I TP-J TP-K TP-L TP-M TP-A32 TP-A33 TP-A22 TP-A23 TP-A35 TP-A30 & TP-A31 TP-A36 TP-A38 TP-A39 TP-C TP-A/TP18-04 & TP-05 TP-N/ TP18-03 TP-B/TP18-06 TP-A60 TRENCH 2 TRENCH 1 TP-E TP-F TP-C3 TP-D1 & TP-D2 TP-H TP-G

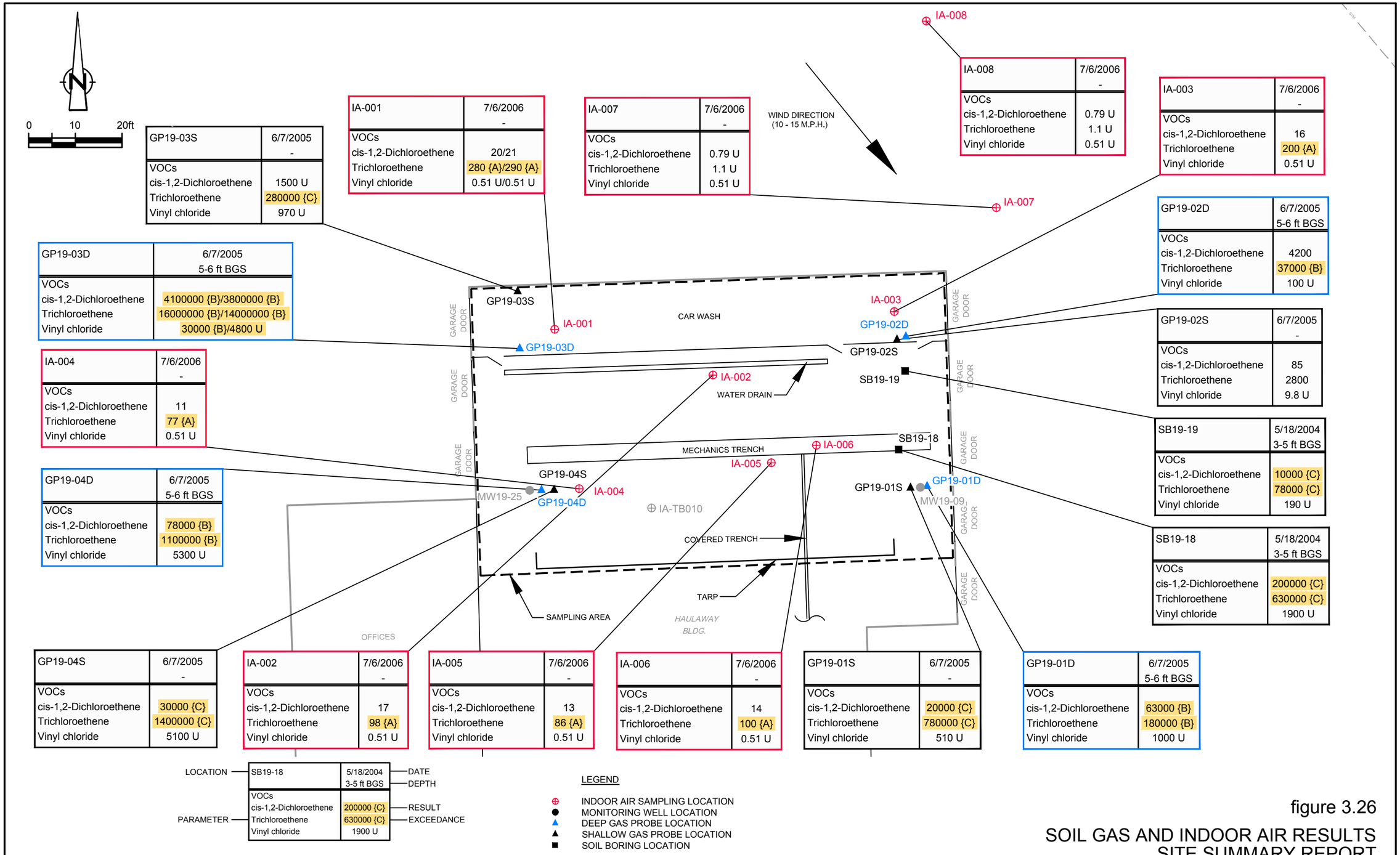
OUTFALL #11 OUTFALL #12 OUTFALL #13 OUTFALL #14 ABANDONED OUTFALL #12 SHEET PILE WALL CATWALKS TYLER POND TYLER POND OUTLET STRU

HAULAWAY BLDG. HAULAWAY YARD GUARD SHACK TANK TYLER ROAD

36" FORCE MAIN 16" FORCE MAIN(OLD)

figure 3.25

EM61 METAL DETECTION RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan



GP19-03S	6/7/2005 -
VOCs	
cis-1,2-Dichloroethene	1500 U
Trichloroethene	280000 {C}
Vinyl chloride	970 U

IA-001	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	20/21
Trichloroethene	280 {A}/290 {A}
Vinyl chloride	0.51 U/0.51 U

IA-007	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	0.79 U
Trichloroethene	1.1 U
Vinyl chloride	0.51 U

IA-008	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	0.79 U
Trichloroethene	1.1 U
Vinyl chloride	0.51 U

IA-003	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	16
Trichloroethene	200 {A}
Vinyl chloride	0.51 U

GP19-03D	6/7/2005 5-6 ft BGS
VOCs	
cis-1,2-Dichloroethene	4100000 {B}/3800000 {B}
Trichloroethene	16000000 {B}/14000000 {B}
Vinyl chloride	30000 {B}/4800 U

GP19-02D	6/7/2005 5-6 ft BGS
VOCs	
cis-1,2-Dichloroethene	4200
Trichloroethene	37000 {B}
Vinyl chloride	100 U

GP19-02S	6/7/2005 -
VOCs	
cis-1,2-Dichloroethene	85
Trichloroethene	2800
Vinyl chloride	9.8 U

IA-004	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	11
Trichloroethene	77 {A}
Vinyl chloride	0.51 U

SB19-19	5/18/2004 3-5 ft BGS
VOCs	
cis-1,2-Dichloroethene	10000 {C}
Trichloroethene	78000 {C}
Vinyl chloride	190 U

GP19-04D	6/7/2005 5-6 ft BGS
VOCs	
cis-1,2-Dichloroethene	78000 {B}
Trichloroethene	1100000 {B}
Vinyl chloride	5300 U

SB19-18	5/18/2004 3-5 ft BGS
VOCs	
cis-1,2-Dichloroethene	200000 {C}
Trichloroethene	630000 {C}
Vinyl chloride	1900 U

GP19-04S	6/7/2005 -
VOCs	
cis-1,2-Dichloroethene	30000 {C}
Trichloroethene	1400000 {C}
Vinyl chloride	5100 U

IA-002	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	17
Trichloroethene	98 {A}
Vinyl chloride	0.51 U

IA-005	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	13
Trichloroethene	86 {A}
Vinyl chloride	0.51 U

IA-006	7/6/2006 -
VOCs	
cis-1,2-Dichloroethene	14
Trichloroethene	100 {A}
Vinyl chloride	0.51 U

GP19-01S	6/7/2005 -
VOCs	
cis-1,2-Dichloroethene	20000 {C}
Trichloroethene	780000 {C}
Vinyl chloride	510 U

GP19-01D	6/7/2005 5-6 ft BGS
VOCs	
cis-1,2-Dichloroethene	63000 {B}
Trichloroethene	180000 {B}
Vinyl chloride	1000 U

LOCATION	SB19-18	5/18/2004 3-5 ft BGS	DATE / DEPTH
	VOCs		
PARAMETER	cis-1,2-Dichloroethene	200000 {C}	RESULT
	Trichloroethene	630000 {C}	EXCEEDANCE
	Vinyl chloride	1900 U	

LEGEND

- ⊕ INDOOR AIR SAMPLING LOCATION
- ● MONITORING WELL LOCATION
- ▲ DEEP GAS PROBE LOCATION
- ▲ SHALLOW GAS PROBE LOCATION
- ■ SOIL BORING LOCATION

CRITERIA: MDEQ DRAFT 2009 RRD VAPOR INTRUSION CRITERIA

INDOOR AIR SAMPLES ARE COMPARED AGAINST NON-RESIDENTIAL INDOOR AIR CRITERIA {A}
DEEP SOIL GAS PROBE SAMPLES ARE COMPARED AGAINST DEEP 5' NON-RESIDENTIAL SOIL GAS CRITERIA {B}
SHALLOW SOIL GAS PROBE SAMPLES ARE COMPARED AGAINST SUBSLAB NON-RESIDENTIAL SOIL GAS CRITERIA {C}

NOTE: CONCENTRATIONS REPORTED IN µg/m³

figure 3.26

SOIL GAS AND INDOOR AIR RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS AREA
Ypsilanti, Michigan

TABLE 1.1

DRAFT FOR REVIEW

UNDERGROUND STORAGE TANK LIST
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Tank ID	Capacity (gallons)	Previous Contents	Installation Date	Removal/Close Date	Location	Status	Comments
1	10000	Diesel	3/24/72	6/1/94	Former CAT Site Plume. **AOI 20**	Removed from Ground	Associated with Release No.C-0655-94.
2	10000	Diesel	3/24/72	6/1/94	Former CAT Site Plume. **AOI 20**	Removed from Ground	
3	550	Gasoline	3/24/72	6/1/94	Former CAT Site Plume. **AOI 20**	Removed from Ground	
4	3000	Engine Oil	3/25/59	6/1/94	Tanks were approximately 25 to 40 feet north of southeast corner of building. Tanks adjacent to building.	Removed from Ground	
5	3000	Water Soluble Machine Oil	3/25/59	11/14/1989		Removed from Ground	

NOTE: Table was prepared using current (2011) information in the MDEQ UST database supplemented with historic investigation reports for the Site

TABLE 2.1

DRAFT FOR REVIEW

SOIL PERMEABILITY RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location	Sample Depth (ft bgs)	Soil Description	Permeability (cm/sec)
Clay Unit			
SB18-61	6-10	Silty CLAY, some sand, trace gravel	2.48E-08
SB19-01	21-23	Clayey SAND, little gravel	2.38E-08
SB19-03	17-19	Silty CLAY and SAND, trace gravel	4.31E-08
SB19-07	11-13	Silty CLAY, some sand, trace gravel	1.26E-08
SB19-14	15-20	Silty CLAY, little sand	3.34E-08
MW19-15	9.5-13.5	Silty CLAY and SAND, little gravel	3.10E-08 **
MW19-23	16-20	Silty CLAY, some sand, trace gravel	1.35E-08
		Geometric Mean:	2.60E-08
Sand Unit			
SB19-04	10-15	SAND, trace gravel, little silt and clay	6.97E-07
SB19-14	10-15	Silty SAND, trace gravel	1.E-05 *
SB19-16	3-5	SAND, trace gravel, trace silt	1.E-03 *
MW19-15	9.5-13.5	Sandy Organic soil	N/A **

Notes:

* Sample recovery quantity and quality prevented SB19-16, 3-5 ft and SB19-14, 10-15 ft from being tested for permeability. For these samples, the permeability was estimated using methods described in "Determination of Hydraulic Conductivity from Complete Grain-Size distribution Curves" by M.S. Alyamani and Z. Sen, printed in GROUND WATER, Vol. 31, No. 4 Dated July-August 1993.

** Two distinct soil types were identified in MW19-15, 9.5 -13.5 ft bgs. Each soil was tested separately, except that only the clay fraction was tested for permeability.

TABLE 2.2

DRAFT FOR REVIEW

SOIL GRAIN SIZE ANALYSIS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location	Sample Depth (ft bgs)	Description	Soil Classification % Gravel	% Sand	% Silt	% Clay
Sand Unit						
SB19-01	12-13.4	SAND, trace gravel, trace silt	9	84	7	0
	13.4-15	SAND, trace gravel, trace silt	1	92	5	2
	21-23	Clayey SAND, little gravel	16	35	30	19
SB19-02	10.5-15	SAND, little silt	0	90	10	0
SB19-03	10.5-16	SAND, trace, gravel, little silt	7	81	10	2
SB19-04	10-15	SAND, little silt	0	85	15	0
	10.5-15	SAND, trace gravel, little silt	2	78	18	2
	13-16	SAND, little silt	0	83	15	2
SB19-05	9-11	SAND, some gravel, trace silt	30	60	9	1
SB19-06	5-7	SAND, trace gravel, little silt, SP-SM	9	76	13	2
SB19-07	9-11	SAND, trace gravel, some silt and clay	2	65	23	10
SB19-08	12-13	SAND, little gravel, little silt and clay	10	68	16	6
SB19-09	11-12'7"	SAND, little silt	0	83	15	2
SB19-10	12-15	SAND, trace silt	0	91	9	0
SB19-11	14-18	SAND, little silt	0	84	14	2
SB19-14	11'10" - 13'4"	SAND, some silt	0	72	26	2
	16'4"-18'9"	SAND, some silt	0	80	20	0
	10-15	Silty SAND	0	51	45	4
SB19-16	3-5	SAND, trace gravel, little silt	3	84	11	2
MW19-14	11-13	Gravelly SAND, little silt	35	50	14	1
MW19-15	9.5-13.5	SAND, trace gravel, trace silt	7	85	6	2
	12-15	SAND, trace gravel, little silt	2	86	10	2
MW19-23	12'9" - 14'4"	SAND, little silt	0	90	10	0
SB18-62	1.7-5.2	SAND, trace gravel, little silt	6	80	12	2
		Sand Unit - Geometric Mean (%):	**6**	**75**	**13**	**3**
Surficial Clay Unit						
SB19-05	0-2	Silty CLAY and SAND, trace gravel	3	45	35	17
SB19-09	0.6-5	Silty CLAY and SAND	0	42	40	18
		Clay Unit Geometric Mean (%):	**3**	**43**	**37**	**17**

TABLE 2.3

DRAFT FOR REVIEW

SITE HISTORY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

EFFORT/EVENTS	COMPLETED BY	DATE
Ford Motor Company owned a large section of undeveloped land including the future Willow Run facility.	--	<1940
Aerial Photo: Groundwater movement at the Site likely in a semi-radial direction in the vicinity of the future Haulaway Bldg. Surface elevations of native clay deposits are likely to slope in a semi-radial direction similar to groundwater movement.	--	1940
A dam was constructed in Willow Run Creek at Tyler Road, creating Tyler Pond.		After 1941, before 1942
U.S. Defense Plant Corporation of America purchased the Willow Run facility and directed Ford to construct and operate a bomber production plant.	--	1941
Former South Culvert area may have been used as a plating waste sludge disposal area.	--	1942 - 1944
The Kaiser-Frazer Company leased the Willow Run facility from the War Asset Administration.	--	November, 1945
Kaiser-Frazer produced automobiles at the facility. Paint sludge was dumped in the area between the fence line and Tyler Pond at the eastern edge of the southern shore of Tyler Pond (current CVO property).	--	1945 - 1953
Kaiser-Frazer purchased the facility.	--	December, 1948
GM purchased the Willow Run facility. Site building was used as a parts storage warehouse for the GM Parts Division.	--	December, 1954
Aerial Photo: Natural hydraulic gradient of groundwater discharging to Willow Run Creek was lowered when the creek was dammed along Tyler Road (creating Tyler Pond). Potential filling activities along the former riverbank near PAOC 18 of current CVO Site.	--	1955
Chevrolet Motor Division took over operations.	--	1955
Typical automotive assembly plant operations. Various products and management authorities were involved during this period.	--	1956 - July, 1993
Facility light truck assembly began.	--	January 31, 1956
Existing Haulaway Building was constructed.	--	1959
Aerial Photo: Hydraulic gradient/flow direction of groundwater potentially modified by installation of storm sewer lines between the original Haulaway Bldg. and Tyler Road.	--	1963
Additions to Haulaway Bldg. with additional development and pavement in surrounding areas likely required additional storm sewers to be installed.	--	1978, 1985, 1994
Production operations ceased at the former Willow Run Assembly Plant.	--	July, 1993
Facility deactivation/decommissioning activities at the former Willow Run Assembly Plant.	--	1993 - 1997
Soil Investigation - confirm culvert location and fill material northwest of current CVO operations.	Atwell-Hicks	1994
90 cubic yards of visible surface waste and approx. 30 drum remnants removed from the south bank of Tyler Pond. TCLP lead found above RCRA criteria. Samples from post-excavation floor revealed lead and benzo(a)pyrene above applicable criteria.	Weston	February, 1994

TABLE 2.3

DRAFT FOR REVIEW

SITE HISTORY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

EFFORT/EVENTS	COMPLETED BY	DATE
Additional soil sampling performed, found lead, dibenzo(a,h)anthracene, and benzo(a)pyrene above applicable criteria.	Weston	May 5, 1994
Phase II ESI conducted.	Chester	June, 1995
Large-scale remedial dredging of Tyler Pond.	PRPs	1995 - 1999
Phase III EOC Study - defined the lateral and vertical extent of lead and PAH-impacted soil.	BBL	December, 1996 - March, 1997
The former Willow Run Assembly Plant was sold and used as a storage warehouse named the Willow Run Business Center (CVO property was retained by GM).	--	1997
Aerial Photo: Hydraulic gradient/flow direction modified by dredging operations to remediate PCB sediments in former creek bottom.	--	1998
Continued Investigations and Interim Response Actions.	CRA	2000-Present
GM bankruptcy.	--	June, 2009
GM Company Vehicle Operations vacates Site.	--	December, 2010
Revitalizing Auto Communities Environmental Response (RACER) Trust formed as operator of Site.	--	March 31, 2011

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TABLE 3.1

RELEVANT SCREENING CRITERIA BY PAOC
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Soil Criteria	Comments	PAOC 18 Outfall 12 NAPL Area	PAOC 19 CVO Property Groundwater	PAOC 23 1949 Fill Area	PAOC 24 1952 Pits	PAOC 29 Kaiser-Frazer Dump Area
Groundwater Protection						
Drinking Water	MDEQ granted GWNIAA determination 9/1/2004.	✔ Used as a screening tool. Groundwater data collected to evaluate pathway (discussed under PAOC 19).	Groundwater data collected to evaluate pathway.	✔ Used as a screening tool. Groundwater data collected to evaluate pathway (discussed under PAOC 19).	✔ Used as a screening tool. Groundwater data collected to evaluate pathway (discussed under PAOC 19).	✔ Used as a screening tool. Groundwater data collected to evaluate pathway (discussed under PAOC 19).
Groundwater Surface Water Interface Protection	--					
Groundwater Contact Protection	--					
Ambient Air						
Infinite Source /Finite 2m & 5m Source	Infinite source used as primary screening tool. If concentrations exceed use appropriate finite source criteria.	✔	N/A[2]	✔	✔	✔
Particulate Inhalation	Not relevant where asphalt cap is present.	✔ In grass areas.	N/A[2]	N/A[1]	N/A[1]	✔ In grass areas.
Other						
Direct Contact	Most areas covered by asphalt parking lot.	✔ In grass areas.	N/A[2]	N/A[1]	N/A[1]	✔ In grass areas.
Volatilization to Indoor Air	Only one building on-Site - Haulaway Building.	N/A	N/A[2]	✔	N/A	N/A
Soil Saturation	Used as screening tool for potential free product only.	N/A[3]	N/A[2]	N/A[3]	N/A[3]	N/A[3]
Groundwater Criteria						
Drinking Water	MDEQ granted GWNIAA determination 9/1/2004.	N/A (Soil only)	✔ Residential used to evaluate off-site migration at property boundary	N/A (Soil only)	N/A (Soil only)	N/A (Soil only)
Groundwater Surface Water Interface (GSI)	Relevant at property boundaries, and near on-Site storm sewers.	N/A (Soil only)	✔ At property boundaries and near sewers.	N/A (Soil only)	N/A (Soil only)	N/A (Soil only)
Final Acute Values (GSI)	Relevant at northern property boundary - Tyler Pond.	N/A (Soil only)	✔ At property boundaries.	N/A (Soil only)	N/A (Soil only)	N/A (Soil only)
Direct Contact	Groundwater is approximately 8 to 10 feet below ground surface.	N/A (Soil only)	N/A[1]	N/A (Soil only)	N/A (Soil only)	N/A (Soil only)
Volatilization to Indoor Air	Currently, only one building on-Site - Haulaway Building.	N/A (Soil only)	N/A (only near Haulaway Building and will be addressed under PAOC 23)	✔	N/A	N/A

Notes
N/A - Pathway is not relevant
✔ - Pathway relevant under current use
[1] - Due to depth of impacts and ground cover, this pathway in not relevant for general day to day activities at the Site. There is a potential concern for underground utility workers.
[2] - (Soil Only) - Groundwater pathways will be address on a Sitewide basis under PAOC 19.
[3] - Due to releases of material containing multiple constituents, the soil saturation screening levels (Csat) are not applicable.

TABLE 3.2A

DRAFT FOR REVIEW

GROUNDWATER CONSTITUENTS OF CONCERN
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Acute Inhalation Screening Level	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria*	*Final Acute Value*
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
VOCs (mg/L)										
1,1,2,2-Tetrachloroethane	ID	ID	4.7	0.078	0.035	77	2970	0.0085	12	1.8
1,1,2-Trichloroethane	ID	-	21	0.33	0.005	110	4420	0.005	17	6.4
1,1-Dichloroethene	140	97	11	0.13	0.007	1.3	2250	0.007	0.2	2.3
1,2,4-Trimethylbenzene	ID	56	56	0.017	0.063	56	55.89	0.063	56	0.31
1,2-Dichloroethane	ID	2500	19	0.36	0.005	59	8520	0.005	9.6	16
1,2-Dichloropropane	2800	550	16	0.23	0.005	36	2800	0.005	16	4
1,3,5-Trimethylbenzene	ID	ID	61	0.045	0.072	61	61.15	0.072	61	0.81
1,3-Dichlorobenzene	ID	ID	2	0.028	0.019	41	111	0.0066	18	0.2
2-Butanone (Methyl ethyl ketone) (MEK)	240000	ID	240000	2.2	38	240000	240000	13	240000	40
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	20000	ID	13000	ID	5.2	20000	20000	1.8	20000	ID
Acetone	1000000	15000	31000	1.7	2.1	1000000	1000000	0.73	1000000	30
Benzene	67	68	11	0.2	0.005	35	1750	0.005	5.6	1.9
Carbon tetrachloride	96	ID	4.6	0.045	0.005	2.4	793	0.005	0.37	1.4
Chlorobenzene	ID	160	86	0.025	0.1	470	472	0.1	210	0.45
cis-1,2-Dichloroethene	ID	530	200	0.62	0.07	210	3500	0.07	93	11
Ethylbenzene	170	43	170	0.018	0.074	170	169	0.074	110	0.32
Isopropyl benzene	ID	29	56	0.028	2.3	56	56	0.8	56	0.5
Methyl tert butyl ether (MTBE)	ID	ID	610	7.1	0.04	47000	46800	0.04	47000	420
Methylene chloride	ID	ID	220	1.5	0.005	1400	17000	0.005	220	17
m-Xylene	190	70	190	-	0.28	190	186	0.28	190	-
Naphthalene	31	-	31	0.011	1.5	31	31	0.52	31	0.2
o-Xylene	190	70	190	-	0.28	190	186	0.28	190	-
Tetrachloroethene	200	ID	12	0.06	0.005	170	200	0.005	25	2.9
Toluene	ID	61	530	0.27	0.79	530	526	0.79	530	2.6
trans-1,2-Dichloroethene	ID	230	220	1.5	0.1	200	6300	0.1	85	28
Trichloroethene	1100	ID	22	0.2	0.005	97	1100	0.005	15	3.5
Trifluorotrichloroethane (Freon 113)	170	ID	170	0.032	170	170	170	170	170	0.57
Vinyl chloride	ID	33	1	0.013	0.002	13	2760	0.002	1.1	17
Xylenes (total)	190	70	190	0.041	0.28	190	186	0.28	190	0.73
SVOCs (mg/L)										
Benzo(a)anthracene	ID	ID	0.0094	ID	0.0085	NLV	0.0094	0.0021	NLV	ID
Benzo(a)pyrene	ID	ID	0.001	ID	0.005	NLV	0.00162	0.005	NLV	ID
Benzo(b)fluoranthene	ID	ID	0.0015	ID	0.0015	ID	0.0015	0.0015	ID	ID
Benzo(g,h,i)perylene	ID	ID	0.001	-	0.001	NLV	0.00026	0.001	NLV	-
Benzo(k)fluoranthene	ID	ID	0.001	-	0.001	NLV	0.0008	0.001	NLV	-
Chrysene	ID	ID	0.0016	ID	0.0016	ID	0.0016	0.0016	ID	ID
Di-n-butylphthalate (DBP)	ID	-	11	0.0097	2.5	NLV	11.2	0.88	NLV	0.075
Fluoranthene	ID	ID	0.21	0.0016	0.21	0.21	0.206	0.21	0.21	0.028
Indeno(1,2,3-cd)pyrene	ID	ID	0.002	ID	0.002	NLV	0.000022	0.002	NLV	ID
Naphthalene	31	-	31	0.011	1.5	31	31	0.52	31	0.2
Phenanthrene	ID	ID	1	0.002	0.15	1	1	0.052	1	0.0094

TABLE 3.2A

DRAFT FOR REVIEW

GROUNDWATER CONSTITUENTS OF CONCERN
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Acute Inhalation Screening Level	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria*	*Final Acute Value*
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
PCBs (mg/L)										
Total PCBs	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID
Inorganics (mg/L)										
Aluminum	ID	ID	64000	-	0.05	NLV	-	0.05	NLV	-
Antimony	ID	ID	68	0.13	0.006	NLV	-	0.006	NLV	2.3
Arsenic	ID	ID	4.3	0.01	0.01	NLV	-	0.01	NLV	0.68
Barium	ID	ID	14000	1.87	2	NLV	-	2	NLV	EXP
Cadmium	ID	ID	190	0.00612	0.005	NLV	-	0.005	NLV	EXP
Chromium	ID	ID	460	0.011	0.1	NLV	-	0.1	NLV	EXP
Cobalt	ID	ID	2400	0.1	0.1	NLV	-	0.04	NLV	0.74
Copper	ID	ID	7400	0.0287	1	NLV	-	1	NLV	EXP
Cyanide (total)	ID	ID	57	0.0052	0.2	NLV	-	0.2	NLV	-
Iron	ID	ID	58000	-	0.3	NLV	-	0.3	NLV	-
Lead	ID	ID	ID	0.0438	0.004	NLV	-	0.004	NLV	EXP
Manganese	ID	ID	9100	6.4	0.05	NLV	-	0.05	NLV	EXP
Mercury	ID	ID	0.056	0.0000013	0.002	0.056	0.056	0.002	0.056	2.8
Nickel	ID	ID	74000	0.165	0.1	NLV	-	0.1	NLV	EXP
Phenol	ID	-	29000	0.45	13	NLV	82800	4.4	NLV	6.8
Selenium	ID	ID	970	0.005	0.05	NLV	-	0.05	NLV	0.12
Silver	ID	ID	1500	0.0002	0.098	NLV	-	0.034	NLV	0.0011
Vanadium	ID	ID	970	0.012	0.062	NLV	-	0.0045	NLV	0.22
Zinc	ID	ID	110000	0.375	5	NLV	-	2.4	NLV	EXP

Footnotes

ID	Insufficient data to develop criterion
NLL	Hazardous substance is not likely to leach under most soil conditions.
NLV	Hazardous substance is not likely to volatilize under most conditions

DRAFT FOR REVIEW

TABLE 3.2B

SOIL CONSTITUENTS OF CONCERN
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Nonresidential Finite VSIC for 2 Meter Source Thickness	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
VOCs (mg/kg)										
1,1,2-Trichloroethane	120	57	57	840	0.1	24	250000	420	6.6	920
1,1-Dichloroethene	37	15	3.7	570	0.14	0.33	78000	220	2.6	570
1,2,4-Trichlorobenzene	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100
1,2,4-Trimethylbenzene	600000	600000	25000	110	2.1	110	36000000	110	0.57	110
1,2-Dibromo-3-chloropropane (DBCP)	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2
1,2-Dichlorobenzene	55000	46000	46000	210	14	210	44000000	210	0.28	210
1,2-Dichloroethane	74	33	21	420	0.1	11	150000	380	7.2	1200
1,4-Dichlorobenzene	340	260	260	1900	1.7	100	570000	140	0.36	-
Benzene	230	99	45	400	0.1	8.4	470000	220	4	400
Chlorobenzene	2100	1100	920	260	2	220	2100000	260	0.5	260
cis-1,2-Dichloroethene	1000	430	210	640	1.4	41	1000000	640	12	640
Ethylbenzene	6500	3100	2400	140	1.5	140	13000000	140	0.36	140
Isopropyl benzene	3000	2000	2000	390	260	390	2600000	390	3.2	390
Methylene chloride	4000	1700	700	2300	0.1	240	8300000	2300	30	2300
o-Xylene	130000	65000	54000	150	5.6	150	130000000	150	-	150
p-Xylene	130000	65000	54000	150	5.6	150	130000000	150	-	150
Styrene	4200	3300	3300	520	2.7	520	6900000	270	2.1	520
Toluene	36000	36000	3300	250	16	250	12000000	250	5.4	250
Trichloroethene	1100	440	260	500	0.1	37	2300000	440	4	500
Vinyl chloride	420	170	29	34	0.04	2.8	890000	20	0.26	490
Xylenes (total)	130000	65000	54000	150	5.6	150	130000000	150	0.82	150
SVOCs (mg/kg)										
2,4-Dimethylphenol	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-
2-Methylnaphthalene	1800	1800	1800	26000	170	4900	290000	5500	4.2	-
4-Methylphenol	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-
Acenaphthene	97000	97000	97000	130000	880	350000	6200000	970	8.7	-
Acenaphthylene	2700	2700	2700	5200	17	3000	1000000	440	ID	-
Anthracene	1600000	1600000	1600000	730000	41	1000000 D	29000000	41	ID	-
Benzo(a)anthracene	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-
Benzo(a)pyrene	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-
Benzo(b)fluoranthene	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-
Benzo(k)fluoranthene	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-
Carbazole	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-
Dibenz(a,h)anthracene	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-
Dibenzofuran	160	160	160	ID	ID	3600	2900	ID	1.7	-
Di-n-butylphthalate (DBP)	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760
Fluoranthene	880000	880000	890000	130000	730	1000000 D	4100000	730	5.5	-
Fluorene	150000	150000	150000	87000	890	1000000 D	4100000	890	5.3	-
Indeno(1,2,3-cd)pyrene	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-
Naphthalene	350	350	350	52000	100	470	88000	2100	0.73	-
Phenanthrene	190	190	190	5200	160	5100	2900	1100	2.1	-
Phenol	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000

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TABLE 3.2B

SOIL CONSTITUENTS OF CONCERN
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Nonresidential Finite VSIC for 2 Meter Source Thickness	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
Inorganics (mg/kg)										
Aluminum	NLV	NLV	NLV	370000	1	NLV	ID	1000000	-	
Antimony	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-
Arsenic	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-
Barium	NLV	NLV	NLV	130000	1300	NLV	150000	1000000	1250	-
Cadmium	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-
Chromium	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-
Cobalt	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-
Copper	NLV	NLV	NLV	73000	5800	NLV	59000	1000000	167	-
Cyanide (total)	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-
Iron	NLV	NLV	NLV	580000	6	NLV	ID	1000000	-	-
Lead	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-
Magnesium	NLV	NLV	NLV	1000000	22000	NLV	2900000	1000000	-	-
Manganese	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-
Mercury	62	62	62	580	1.7	89	8800	47	0.05	-
Nickel	NLV	NLV	NLV	150000	100	NLV	16000	1000000	166	-
Selenium	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-
Silver	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-
Thallium	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-
Zinc	NLV	NLV	NLV	630000	5000	NLV	ID	1000000	377	-
PCBs (mg/kg)										
Total PCBs	28000	28000	810	16	NLL	16000	6500	NLL	NLL	

Footnotes

ID	Insufficient data to develop criterion
NLL	Hazardous substance is not likely to leach under most soil conditions.
NLV	Hazardous substance is not likely to volatilize under most conditions

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TABLE 3.3

PAOC SUMMARY TABLE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC	Name	Location	Description of Area	Description of Concerns	Previous Investigations/Actions	Remedial Activities/System Status	Further Action /No Further Action	Figures/Tables**
18	Outfall NAPL Area	Southern bank of Tyler Pond, east of catwalks (East of PAOC 29).	•Former owner/operator dumped "paint sludge" in area between CVO fenceline and Tyler Pond •Elevated concentration of CVOCs in groundwater (PAOC area coincides with $KMnO_4$ 2001-2002 PAOC 19 Injection Area 2) •DNAPL identified in 2004 •Area used as access point during Tyler Pond remediation in between 1995 and 1999. Bank stabilized with clay (surficial).	•DNAPL •LNAPL •Buried Debris •VOCs,SVOCs, PCBs, and metals •Primarily VOCs and PCBs	Late '90s - BBL conducted investigation activities to define the lateral and vertical extent of lead and PAH-impacted soil. 2002 - 2005 - CRA conducted additional investigation activities that identified and delineated extent of DNAPL and buried debris and defined geology along bank of pond.	1994 - surface waste material and drum remnants were removed by Weston 2001-2002 - Chemical Oxidation treatments to target elevated CVOC concentrations in groundwater 2004 - Sheet Pile wall was installed 2004 to Present - Regular DNAPL recovery events (manual & automated) 2005 - Drums and debris were removed during test pitting activities (identified by electromagnetic survey) 2007 - Soy Lactate Injection conducted to target CVOCs above FAV criteria 2007 - GS-6 paint sludge excavation/removal 2010 - Installation of french drain within sheetpile wall area to prevent groundwater venting to groundsurface and then to Tyler Pond	Further Action	Soil: Figures 3.1 through 3.4 LNAPL data - Table 3.5
19	CVO Site Groundwater	Sitewide Groundwater	•Sitewide impacted groundwater •Includes two areas (Area 1 and Area 2) of higher CVOC contamination that were initially identified as target areas for chemical oxidation treatments ($KMnO_4$) in 2001 and 2002 •A regular groundwater sampling program (quarterly, semi-annually & annually) was instituted after chemical oxidation treatments	•VOCs, SVOCs, metals, and PCBs •Primarily Sitewide CVOCs (TCE, DCE, VC)	CRA installed five GSI wells (along the southern bank of Tyler Pond) and sixteen monitoring wells, including perimeter wells to investigate and delineate groundwater impacts at the Site.	2001-2002 - four chemox injections using $KMnO_4$ completed to reduce CVOC concentrations in two hot spots (Area 1 & Area 2) 2007 - Soy Lactate Injections conducted to target CVOCs above FAV criteria in Area 2 (coincides with PAOC 18) 2010 - Installation of french drain within sheetpile wall area (Area 2) to prevent groundwater venting to groundsurface and then to Tyler Pond	Further Action	GW: Figures 3.13 through 3.20
20	Former CAT Site VOC Plume	West of the Haulaway Building and beneath western part of the Haulaway Building	•An underground storage tank (UST) farm was located near the northwest corner of the building. Tank farm included two 10,000 gallon diesel USTs and one 550 gallon gasoline UST. A release was discovered when the USTs and the piping were removed in 1994. •This PAOC was originally addressed under Part 213, the leaking UST program. Leak # C-0655-94-release: 06/21/1994 and closed 12/21/2001.	•Petroleum release - BTEX	1994 & 1996 - OBG performed a Phase I Hydrogeologic investigation to address soil and groundwater impacts during the tank removal activities. The extent of BTEX impacts was defined in the vicinity of the former tank and pipe system. The extent of VOH impacts was defined to the east and south. A closure report for the CAT Site (MERA Site ID NO. 810438) was submitted in October 2001 (BBL, 2001). -DEC (BBL, 1997 and 2001) and Closure Reports proposed that since non-BTEX VOC impacts not regulated under Part 213 encompass a majority of the area, the impacts remaining in the PAOC 20 area will be addressed under PAOC 19.	The USTs and the piping were removed in 1994 and the extent of impacts were defined. A Corrective Action Plan (CAP) for the western portion of the Site was submitted with the Final Assessment Report in 1996. The CAP required quarterly sampling of groundwater to monitor the effectiveness of natural attenuation at this site. MDEQ accepted the Closure Report in a letter dated December 10, 2001	No Further Action	Soil: Figures 3.4 through 3.6
23	1949 Fill Area	Northeast corner of Haulaway Building and beneath the northern part of the Haulaway Building	•Pit and soil disturbances were observed in a 1949 aerial. The pit may have contained liquids. •PAOC area coincides with $KMnO_4$ 2001-2002 Injection Area 1 •PAOC 23 lies on the apparent groundwater divide for site (Groundwater impacts are addressed under PAOC 19-Sitewide groundwater)	•VOCs - Primarily CVOCs (TCE, DCE and VC) •LNAPL - limited •Buried debris •Volatilization to indoor air	2004 - PAOC 23 pit was identified upon review of historical aerial photos 2004 - 2006: CRA conducted additional investigation activities that included EM surveys, test pitting, MIP, soil gas and indoor air sampling activities.	2001 - Chemical Oxidation - Four $KMnO_4$ injection events (2001-2002) 2003 - Soil IRA was completed to remove material that was found to be an ongoing source of groundwater contamination 2010-2011 - samples collected to evaluate catalyzed sodium per sulfate as a chemical oxidant to treat the area and the potential effectiveness of enhanced aerobic biodegradation	Further Action	Soil: Figures 3.4 through 3.6
24	1952 Pits	Northwest of Haulaway Building	•Two pits were observed in a 1952 aerial. The pits may have contained liquids.	•Fuel-type impacts, similar to PAOC 20, were identified in this area.	2004 - PAOC 24 was identified upon review of historical aerial photos in 2004. 2004 - CRA conducted investigation activities that included direct push/MIP borings and soil samples were collected from the boreholes adjacent to the MIP borings with the highest detections of CVOCs and VOCs.	None	No Further Action	Soil: Figures 3.4 through 3.6

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TABLE 3.3

PAOC SUMMARY TABLE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC	Name	Location	Description of Area	Description of Concerns	Previous Investigations/Actions	Remedial Activities/System Status	Further Action /No Further Action	Figures/Tables**
29	Kaiser-Frazer Dump Area	Southern bank of Tyler Pond, west of catwalks	•Former owner/operator dumped "paint sludge" in area between CVO fenceline and Tyler Pond •Test pits completed in 2005 identified significant amount of buried debris including drums •PAOC 21 (sink hole waste area) and PAOC 22 (paint sludge area), documented in workplans were incorporated into this PAOC based on like fill materials	•Buried debris •VOCs, SVOCs, and Metals	Late '90s - BBL conducted investigation activities to define the lateral and vertical extent of lead and PAH-impacted soil. 2002 - 2005 - CRA conducted additional investigation activities that identified buried debris and defined geology along bank of pond including soil borings, EM surveys and test pits.	1994 - surface waste material and drum remnants were removed by Weston 2005 - Drums and debris were removed during test pitting activities (identified by electromagnetic survey)	Further Action	Figures 1.2 and 1.3 Soil - Figures 3.7 through 3.9 GW - Figures 3.11 through 3.13

Notes:
"**Analytical data summary tables are presented in Appendix F.
CVO - Company Vehicle Operations Property
PAOC - Potential Area of Concern
VOCs - Volatile Organic Compounds
VOH - Volatile Organic Hydrocarbon
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
CVOCs - Chlorinated Volatile Organic Compounds
TCE - Trichloroethylene
DCE - Dichloroethylene
VC - Vinyl Chloride
FAV - Final Acute Value
GW- Groundwater
SO - Soil

BBL - Blasland, Bouck and Lee
CRA - Conestoga Rovers and Associates
IRA - Interim Response Action
UST - Underground Storage Tank
DNAPL - Dense non-aqueous phase liquid
LNAPL - Light non-aqueous phase liquid
NAPL - Non-aqueous phase liquid
PAH - Petroleum Aromatic Hydrocarbon
MDEQ - Michigan Department of Environmental Quality
CAT - Complete Auto Transit
GSI - Groundwater Surface water Interface
OBG - O'Brien & Gere
BTEX - benzene, toluene, ethylbenzene, and xylene

TABLE 3.4A

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SUMMARY OF HIGHEST CONCENTRATIONS IN GROUNDWATER BY PATHWAY AND PAOC
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Groundwater Criteria	Comments	PAOC 19 CVO Property Groundwater
Residential Drinking Water (Perimeter wells only)	MDEQ granted GWNIAA determination 9/1/2004.	VOCs: 1,1-DCE (0.34), 1,3-Dichlorobenzene (0.03), Acetone (8.2), Benzene (0.46), cis-1,2-DCE (140), Ethylbenzene (1.3), Methylene Chloride (2.2), m-xylene (0.33), trans-1,2-DCE (1.1), TCE (8.7), VC (51), Xylenes (4.8) Inorganics: Aluminum (0.445), Antimony (0.016), Arsenic (0.0297), Cadmium (0.0206), Iron (30.2), Iron dissolved (13.3), Lead (0.229), Manganese (6.81), Manganese Dissolved (2.55), Vanadium (0.0526), PCBs: 0.0082
Non-Residential Drinking Water Criteria (Interior wells only)	MDEQ granted GWNIAA determination 9/1/2004.	VOCs: 1,1,2-TCA (0.034), 1,1-DCE (1.3), 1,2,4-Trimethylbenzene (0.22), 1,2-Dichloroethane (0.11), 1,2-dichloropropane (0.013), 1,3-dichlorobenzene (0.03), 2-Butampme (6.3), Acetone (970), Benzene (0.63), Carbon tetrachloride (0.016), Chlorobenzene (0.18), cis-1,2-DCE (500), Ethylbenzene (3.5), Isopropylbenzene (0.14), MTBE (0.21), Methylene Chloride (2.2), m-xylene (5.7), Naphthalene (0.1), o-xylene (2.7), Tetrachloroethene (0.016), Toluene (17), trans-1,2-DCE (8.7), TCE (260), VC (220), Xylenes (10) SVOCs: Benzo(b)fluoranthene (0.0062), Benzo(g,h,i)perylene(0.0015), Benzo(k)fluoranthene (0.0015), Chrysene (0.002), Inorganics: Aluminum (0.445), Antimony (22.6), Arsenic (0.0297), Barium (4.38), Cadmium (0.69), Chromium (410), Cobalt (0.683), Copper (0.394), Iron (88.4), Lead (7.25), Manganese (160), Manganese dissolved (18.5), Mercury (0.0158), Nickel (0.106), Selenium (0.231), Zinc (138) PCBs: total PCBs (2.6)
Groundwater Surface Water Interface (GSI)	Relevant at property boundaries, and near on-Site storm sewers.	VOCs: 1,1-DCE (0.34), 1,3-Dichlorobenzene (0.03), Acetone (8.2), benzene (0.46), chlorobenzene (0.092), cis-1,2-DCE (140), Ethylbenzene (1.3), Isopropyl benzene (0.029), Methylene Chloride (2.2), TCE (8.7), VC (51), Xylenes (4.8) Inorganics: Arsenic (0.0297), Cadmium (0.0206), Chromium (0.098), Copper (0.369), Cyanide total (0.033) Lead (0.229), Manganese (6.81), Mercury (0.001), Selenium (0.0101), Silver (0.0011), Vanadium (0.0526), PCBs: 0.0082
Final Acute Values (GSI)	At northern property boundary - Tyler Pond Receiving Water.	VOCs: Cis-1,2-DCE (140), TCE (8.7), VC (51)
Groundwater Contact	Groundwater is approximately 8 to 10 feet below ground surface.	VOCs: VC (220) SVOCs: Benzo(a)pyrene (0.0015), Benzo(b)fluoranthene (0.0062), Benzo(g,h,i)perylene(0.0015), Benzo(k)fluoranthene (0.0015), Chrysene (0.002), PCBs: total PCBs (2.6)
Volatilization to Indoor Air	Currently only one building on Site	SVOCs: cis-1,2-DCE (500), TCE (260), VC (220) PCBs: total PCBs (2.6)

Notes

Concentrations of the constituents are shown in parenthesis are the highest detected in that PAOC

The soil concentrations are presented in mg/kg.
The groundwater concentrations are presented in mg/L.
PAOC - Potential Area of Concern
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
TCE - Trichloroethene
cis-1,2-DCE: cis-1,2-dichloroethene
VC - Vinyl Chloride
GWNIAA - Groundwater Not In An Aquifer

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TABLE 3.4B

SUMMARY OF HIGHEST CONCENTRATIONS IN SOIL BY PATHWAY AND PAOC
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Soil Criteria	Comments	PAOC 18 Outfall 12 NAPL Area Soil Borings and Test Pits	PAOC 23 1949 Fill Area Soil Borings and Test Pits	PAOC 24 1952 Pits Soil Borings	PAOC 29 Kaiser-Frazer Dump Area Soil Borings and Test Pits
Background Concentration		Metals: Aluminum (13100), Arsenic (23.9), Barium (10100), Cadmium (613), Cobalt (80.6), Copper (373), Iron (34100), Lead (61300), Lead - total (calculated by fine/coarse fraction) (10800), Manganese (600), Mercury (2.6), Nickel (39.1), Selenium (101), Silver (69.4), Zinc (10900)	Metals: Barium (2230), Cadmium (63.2), Cobalt (37.1), Copper (258), Lead (969), Lead - total (calculated by fine/coarse fraction) (433), Selenium (1.04), Zinc (17000)	Metals: Barium (2390), Cadmium (6.8), Cobalt (7.3), Lead - total (calculated by fine/coarse fraction) (87.1), Selenium (2.6), Zinc (194)	Metals: Arsenic (90.7), Barium (5070), Cadmium (1170), Cobalt (104), Copper (9310), Iron (204000), Lead (170000), Lead - total (calculated by fine/coarse fraction) (69200), Manganese (2570), Mercury (0.36), Nickel (278), Selenium (421), Silver (7.4), Zinc (9030)
Drinking Water Protection	MDEQ granted GWNIAA determination 9/1/2004.	VOCs: 1,2,4-Trichlorobenzene (78), 1,2-Dichloroethane (190), Benzene (2.1), cis-1,2-DCE (1700), Ethylbenzene (730), Methylene Chloride (3200), o-xylene (180), p-xylene (451), Toluene (430), TCE (96200), VC (231), Xylenes (4500) SVOCs: 2,4-Dimethylphenol (89), 2-Methylnaphthalene (1300), Anthracene (68), Naphthalene (330), Phenanthrene (170) Metals: Aluminum (13100), Antimony (1490), Arsenic (23.9), Barium (10100), Cadmium (613), Chromium (6190), Cobalt (80.6), Iron (34100). Lead (61300), Magnesium (52100), Manganese (600), Mercury (2.6), Selenium (101), Silver (69.4), Zinc (10900), Cyanide (4.5)	VOCs: 1,1,2-Trichloroethane (14), 1,1-DCE (0.19), Benzene (0.25), cis-1,2-DCE (1400), Ethylbenzene (280), Isopropylbenzene (290), Toluene (930), TCE (9700), VC(26), Xylenes (2600) SVOCs: Naphthalene (210) Metals: Antimony (645), Barium (2230), Cadmium (63.2), Chromium (14500), Cobalt (37.1), Lead (969), Thallium (9.18), Zinc (17000)	VOCs: 1,2-Dibromo-3-chloropropane (DBCP) (0.086), Benzene (8.4), Ethylbenzene (250), Xylenes (730) Metals: Barium (2390), Cadmium (6.8), Chromium (53.7), Cobalt (7.3)	VOCs: Benzene (6.2), Chlorobenzene (3.3), cis-1,2-DCE (24), Ethylbenzene (34), TCE (17), VC(0.32), Xylenes (180) SVOCs: Anthracene (130), Phenanthrene (440), Di-n-butylphthalate (1700) Metals: Antimony (573), Arsenic (90.7), Barium (5070), Cadmium (1170), Chromium (16600), Cobalt (104), Copper (9310), Iron (204000), Lead (170000), Lead - total (69200), Manganese (2570), Nickel (278), Selenium (421), Zinc (9030), Thallium (19.1), Cyanide (9.1)
Groundwater Surface Water Interface Protection	--	VOCs: 1,2,4-Trichlorobenzene (78), 1,2-Dichloroethane (190), cis-1,2-DCE (1700), Ethylbenzene (730), Isopropylbenzene (44), Methylene Chloride (3200), Toluene (430), TCE (96200), VC (231), Xylenes (4500) SVOCs: 2,4-Dimethylphenol (89), 4-Methylphenol (16), 2-Methylnaphthalene (1300), Naphthalene (330), Phenanthrene (170), Acenaphthene (73), Di-n-butylphthalate (DBP) (320), Fluoranthene (29), Fluorene (55), Phenol (49) Metals: Antimony (1490), Arsenic (23.9), Barium (10100), Cadmium (613), Chromium (6190), Cobalt (80.6), Copper (373), Lead (61300), Manganese (600), Mercury (2.6), Selenium (101), Silver (69.4), Zinc (10900), Cyanide (4.5)	VOCs: 1,1,2-Trichloroethane (14), 1,2,4-Trimethylbenzene (1.1), cis-1,2-DCE (1400), Ethylbenzene (280), Isopropyl benzene (290), Toluene (930), Trichloroethene (5400), TCE (9700), VC (26), Xylenes (2600) SVOCs: 2-Methylnaphthalene (52), 4-Methylphenol (4.1), Acenaphthene (20), Carbazole (13), Dibenzofuran (40), Di-n-butylphthalate (190), Fluoranthene (98), Fluorene (15), Naphthalene (210), Phenanthrene (140), Phenol (67) Metals: Antimony (645), Barium (2230), Cadmium (63.2), Chromium (14500), Cobalt (37.1), Copper (258), lead (969), Selenium (1.04), Thallium (9.18), Zinc (17000)	VOCs: Benzene (8.4) Ethylbenzene (250), Isopropylbenzene (26), Xylenes (730) SVOCs: 2-Methylnaphthalene (2.4), Naphthalene (9.3), Phenanthrene (4.4) Metals: Barium (2390), Chromium (53.7), Cobalt (7.3), Selenium (2.6)	VOCs: 1,2-Dichlorobenzene (0.73),Benzene (6.2), Chlorobenzene (3.3), cis-1,2-DCE (24), Ethylbenzene (34), Isopropylbenzene (20), Styrene (2.6), Toluene (7.8), TCE (17), VC (0.32), Xylenes (180), SVOCs: Di-n-butylphthalate (1700), 2-Methylnaphthalene (27), Acenaphthene (67), Carbazole (12), Dibenzofuran (7), Fluoranthene (520), Fluorene (57), Naphthalene (50), Phenanthrene (440) Metals: Antimony (573), Arsenic (90.7), Barium (5070), Cadmium (1170), Chromium (16600), Cobalt (104), Copper (9310), Lead (170000), Mercury (0.36), Manganese (2570), Mercury (0.36), Nickel (278), Selenium (421), Silver (7.4), Thallium (19.1), Zinc (9030), Cyanide (9.1)
Groundwater Contact Protection	--	VOCs: cis-1,2-DCE (1700), Ethylbenzene (730), Methylene Chloride (3200), o-xylene (180), p-xylene (451), Toluene (430), TCE (96200), VC (231), Xylenes (4500) SVOCs: Anthracene (68)	VOCs: cis-1,2-Dichloroethene (1400), Ethylbenzene (280), Toluene (930), TCE (9700), VC (26), Xylenes (2600)	VOCs: Ethylbenzene (250), Xylenes (730)	VOCs: Xylenes (180) SVOCs: Anthracene (130), Di-n-butylphthalate (1700)
Ambient Air					
Infinite Source VSIC /Finite 2m & 5 m source thickness	Infinite source used as primary screening tool. If concentrations exceed use appropriate finite source criteria.	VOCs: 1,2-Dichloroethane (190), cis-1,2-DCE (1700), Methylene Chloride (3200), TCE (96200), VC (231)	VOCs: cis-1,2-DCE (1400), TCE (9700)	No Exceedances	SVOCs: Phenanthrene (440)
Particulate Inhalation	Not relevant where asphalt cap is present. [1]	Metals: Chromium (6190), Lead (61300)	Metals: Chromium (14500)	No Exceedances	Metals: Chromium (16600), Lead (1700000), Manganese (2570)
Other					
Direct Contact	Most areas covered by asphalt parking lot. [1]	VOCs: cis-1,2-DCE (1700), Ethylbenzene (730), Methylene Chloride (3200), o-xylene (180), p-xylene (451), Toluene (430), TCE (96200), VC (231), Xylene (4500) Metals: Antimony (1490), Lead (61300) PCBs: total PCBs (648)	VOCs: cis-1,2-DCE (1400), Ethylbenzene (280), Toluene (930), TCE (9700), Xylenes (total) (2600) SVOCs: Benzo(a)pyrene (41) Metals: Chromium (14500), Lead (969)	VOCs: Ethylbenzene (250), Xylenes (730)	VOCs: Xylenes (180) SVOCs: Benzo(a)anthracene (450), Benzo(a)pyrene (130), Benzo(b)fluoranthene (290), Di-n-butylphthalate (1700), Dibenz(a,h)anthracene (29) Metals: Arsenic (90.7), Chromium (16600), Lead (170000)
Volatilization to Indoor Air	Currently only one building on-Site.	VOCs: 1,2-dichloroethane (190), cis-1,2-DCE (1700), Ethylbenzene (730), Methylene Chloride (3200), o-xylene (180), p-xylene (451), Toluene (430), TCE (96200), VC (231) , Xylenes (4500)	VOCs: cis-1,2-DCE (1400), Ethylbenzene (280), Toluene (930), TCE (9700), VC (26), Xylenes (total) (2600)	VOCs: Ethylbenzene (250), Xylenes (730)	VOCs: Xylenes (180)
Soil Saturation	Used as screening tool for potential free product only.	VOCs: cis-1,2-DCE (1700), Ethylbenzene (730), Methylene Chloride (3200), o-xylene (180), p-xylene (451), Toluene (430), TCE (96200), Xylenes (4500)	VOCs: cis-1,2-DCE (1400), Ethylbenzene (280), Toluene (930), TCE (9700), Xylenes (total) (2600)	VOCs: Ethylbenzene (250), Xylenes (730)	VOCs: Xylenes (180) SVOCs: Di-n-butylphthalate (1700)

Notes

Concentrations of the constituents are shown in parenthesis are the highest detected in that PAOC
The soil concentrations are presented in mg/kg.
N/A (Soil Only) - Groundwater pathways will be address on a Sitewide basis under PAOC 19.
PAOC - Potential Area of Concern
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
TCE - Trichloroethene
cis-1,2-DCE: cis-1,2-dichloroethene
VC - Vinyl Chloride
[1] Due to depth of impacts and ground cover, this pathway is not relevant for general day to day activities at the Site. There is a potential concern for underground utility workers.

TABLE 3.5

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NAPL DATA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*MW18-01*	*MW18-02*	*MW18-02*	*IW-40*
PAOC		*18*	*18*	*18*	*23*
NAPL Type		*DNAPL*	*DNAPL*	*DNAPL*	*LNAPL*
Sample ID:		*L-17303-082504-BW-001*	*O-17303-052804-DR-358*	*L-17303-082504-BW-002*	*W-17303-032106-NR-0994*
Sample Date:		*8/25/2004*	*5/28/2004*	*8/25/2004*	*03/21/2006*
Parameters:	*Units*				
VOCs					
1,1,1-Trichloroethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,1,2,2-Tetrachloroethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,1,2-Trichloroethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,1-Dichloroethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,1-Dichloroethene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,2,4-Trichlorobenzene	mg/kg	14000 J	8300 J	33000 J	5700 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,2-Dichlorobenzene	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
1,2-Dichloroethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,2-Dichloropropane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
1,3-Dichlorobenzene	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
1,4-Dichlorobenzene	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
2-Hexanone	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
Acetone	mg/kg	ND(45000)	20000 J	ND(91000)	12000 U
Benzene	mg/kg	ND(11000)	ND(14000)	ND(23000)	510 J
Bromodichloromethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Bromoform	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Bromomethane (Methyl Bromide)	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 UJ
Carbon disulfide	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Carbon tetrachloride	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Chlorobenzene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Chloroethane	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
Chloroform (Trichloromethane)	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Chloromethane (Methyl Chloride)	mg/kg	ND(22000)	ND(26000)	8300 J	5700 U
cis-1,2-Dichloroethene	mg/kg	14000	3700 J	ND(11000)	10000
cis-1,3-Dichloropropene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Cyclohexane	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
Dibromochloromethane	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Dichlorodifluoromethane (CFC-12)	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
Ethylbenzene	mg/kg	ND(11000)	ND(14000)	ND(23000)	1400 J
Isopropylbenzene	mg/kg	ND(22000)	ND(26000)	ND(44000)	410 J
Methyl acetate	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
Methyl cyclohexane	mg/kg	ND(11000)	ND(14000)	ND(23000)	900 J
Methyl Tert Butyl Ether	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
Methylene chloride	mg/kg	ND(11000)	ND(14000)	9700 J B	2900 U
Styrene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 UJ
Tetrachloroethene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Toluene	mg/kg	ND(11000)	ND(14000)	ND(23000)	13000
trans-1,2-Dichloroethene	mg/kg	ND(5600)	ND(6800)	ND(11000)	1500 U
trans-1,3-Dichloropropene	mg/kg	ND(11000)	ND(14000)	ND(23000)	2900 U
Trichloroethene	mg/kg	310000	390000	410000	57000
Trichlorofluoromethane (CFC-11)	mg/kg	ND(22000)	ND(26000)	ND(44000)	5700 U
Trifluorotrichloroethane (Freon 113)	mg/kg	ND(45000)	ND(55000)	ND(91000)	12000 U
Vinyl chloride	mg/kg	ND(22000)	ND(26000)	ND(44000)	620 J
Xylene (total)	mg/kg	33000	ND(14000)	43000	10000
TCLP VOCs					
1,1-Dichloroethene	mg/L	ND(12000)	--	ND(25000)	--
1,2-Dichloroethane	mg/L	ND(12000)	--	ND(25000)	--
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND(25000)	--	ND(50000)	--
Benzene	mg/L	ND(12000)	--	ND(25000)	--
Carbon tetrachloride	mg/L	ND(12000)	--	ND(25000)	--
Chlorobenzene	mg/L	ND(12000)	--	ND(25000)	--
Chloroform (Trichloromethane)	mg/L	ND(12000)	--	ND(25000)	--
Tetrachloroethene	mg/L	ND(12000)	--	ND(25000)	--
Trichloroethene	mg/L	380000	--	460000	--
Vinyl chloride	mg/L	ND(12000)	--	ND(25000)	--

TABLE 3.5

DRAFT FOR REVIEW

NAPL DATA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*MW18-01*	*MW18-02*	*MW18-02*	*IW-40*
PAOC		*18*	*18*	*18*	*23*
NAPL Type		*DNAPL*	*DNAPL*	*DNAPL*	*LNAPL*
Sample ID:		*L-17303-082504-BW-001*	*O-17303-052804-DR-358*	*L-17303-082504-BW-002*	*W-17303-032106-NR-0994*
Sample Date:		*8/25/2004*	*5/28/2004*	*8/25/2004*	*03/21/2006*
Parameters:	*Units*				
SVOCs					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	--	--	--	130 U
2,4,5-Trichlorophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2,4,6-Trichlorophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2,4-Dichlorophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2,4-Dimethylphenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2,4-Dinitrophenol	mg/kg	ND(480)	ND(960)	ND(480)	640 U
2,4-Dinitrotoluene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2,6-Dinitrotoluene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2-Chloronaphthalene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2-Chlorophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2-Methylnaphthalene	mg/kg	33 J	50 J	52 J	190
2-Methylphenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
2-Nitroaniline	mg/kg	ND(480)	ND(960)	ND(480)	640 U
2-Nitrophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
3,3'-Dichlorobenzidine	mg/kg	ND(480)	ND(960)	ND(480)	640 U
3-Nitroaniline	mg/kg	ND(480)	ND(960)	ND(480)	640 U
4,6-Dinitro-2-methylphenol	mg/kg	ND(480)	ND(960)	ND(480)	640 U
4-Bromophenyl phenyl ether	mg/kg	ND(100)	ND(200)	ND(100)	130 U
4-Chloro-3-methylphenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
4-Chloroaniline	mg/kg	ND(100)	ND(200)	ND(100)	130 U
4-Chlorophenyl phenyl ether	mg/kg	ND(100)	ND(200)	ND(100)	130 U
4-Methylphenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
4-Nitroaniline	mg/kg	ND(480)	ND(960)	ND(480)	640 U
4-Nitrophenol	mg/kg	ND(480)	ND(960)	ND(480)	640 U
Acenaphthene	mg/kg	ND(100)	ND(200)	ND(100)	180
Acenaphthylene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Acetophenone	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Anthracene	mg/kg	ND(100)	ND(200)	ND(100)	52 J
Atrazine	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Benzaldehyde	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Benzo(a)anthracene	mg/kg	ND(100)	ND(200)	ND(100)	130
Benzo(a)pyrene	mg/kg	ND(100)	ND(200)	ND(100)	71 J
Benzo(b)fluoranthene	mg/kg	ND(100)	ND(200)	ND(100)	92 J
Benzo(g,h,i)perylene	mg/kg	ND(100)	ND(200)	ND(100)	38 J
Benzo(k)fluoranthene	mg/kg	ND(100)	ND(200)	ND(100)	57 J
Biphenyl	mg/kg	ND(100)	ND(200)	ND(100)	37 J
bis(2-Chloroethoxy)methane	mg/kg	ND(100)	ND(200)	ND(100)	130 U
bis(2-Chloroethyl)ether	mg/kg	ND(100)	ND(200)	ND(100)	130 U
bis(2-Ethylhexyl)phthalate	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Butyl benzylphthalate	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Caprolactam	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Carbazole	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Chrysene	mg/kg	13 J	ND(200)	21 J	110 J
Dibenz(a,h)anthracene	mg/kg	ND(100)	ND(200)	ND(100)	11 J
Dibenzofuran	mg/kg	ND(100)	ND(200)	ND(100)	130
Diethyl phthalate	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Dimethyl phthalate	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Di-n-butylphthalate	mg/kg	58 J	82 J	95 J	1400
Di-n-octyl phthalate	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Fluoranthene	mg/kg	15 J	ND(200)	ND(100)	470
Fluorene	mg/kg	11 J	ND(200)	ND(100)	120 J
Hexachlorobenzene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Hexachlorobutadiene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Hexachlorocyclopentadiene	mg/kg	ND(480)	ND(960)	ND(480)	640 U
Hexachloroethane	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Indeno(1,2,3-cd)pyrene	mg/kg	ND(100)	ND(200)	ND(100)	35 J
Isophorone	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Naphthalene	mg/kg	65 J	52 J	53 J	650
Nitrobenzene	mg/kg	ND(100)	ND(200)	ND(100)	130 U
N-Nitrosodi-n-propylamine	mg/kg	ND(100)	ND(200)	ND(100)	130 U
N-Nitrosodiphenylamine	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Pentachlorophenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Phenanthrene	mg/kg	35 J	28 J	32 J	730
Phenol	mg/kg	ND(100)	ND(200)	ND(100)	130 U
Pyrene	mg/kg	12 J	ND(200)	ND(100)	300

DRAFT FOR REVIEW

TABLE 3.5

NAPL DATA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*MW18-01*	*MW18-02*	*MW18-02*	*IW-40*
PAOC		*18*	*18*	*18*	*23*
NAPL Type		*DNAPL*	*DNAPL*	*DNAPL*	*LNAPL*
Sample ID:		*L-17303-082504-BW-001*	*O-17303-052804-DR-358*	*L-17303-082504-BW-002*	*W-17303-032106-NR-0994*
Sample Date:		*8/25/2004*	*5/28/2004*	*8/25/2004*	*03/21/2006*
Parameters:	*Units*				
TCLP SVOCs					
1,4-Dichlorobenzene	mg/L	71 J	--	280	--
2,4,5-Trichlorophenol	mg/L	ND(80)	--	ND(100)	--
2,4,6-Trichlorophenol	mg/L	ND(80)	--	ND(100)	--
2,4-Dinitrotoluene	mg/L	ND(80)	--	ND(100)	--
2-Methylphenol	mg/L	ND(80)	--	ND(100)	--
3&4-Methylphenol	mg/L	ND(160)	--	ND(200)	--
Hexachlorobenzene	mg/L	ND(80)	--	ND(100)	--
Hexachlorobutadiene	mg/L	ND(80)	--	ND(100)	--
Hexachloroethane	mg/L	ND(80)	--	ND(100)	--
Nitrobenzene	mg/L	ND(80)	--	ND(100)	--
Pentachlorophenol	mg/L	ND(160)	--	ND(200)	--
Pyridine	mg/L	170	--	590	--
Metals					
Aluminum	mg/kg	232	255	240	--
Antimony	mg/kg	0.44 B	0.38 J	0.26 B	1.9 J
Arsenic	mg/kg	ND(1.0)	0.42 J	ND(1.0)	30.0 U
Barium	mg/kg	1.8 B	1.6 J	1.7 B	0.49 J
Beryllium	mg/kg	ND(0.50)	ND(0.50)	ND(0.50)	0.50 U
Cadmium	mg/kg	1.4	0.078 J	0.041 B	6.0
Calcium	mg/kg	210 B	ND(500)	80.8 B	--
Chromium Total	mg/kg	55.6	40.3 J	40.0	807
Cobalt	mg/kg	0.48 B	0.99 J	0.91 B	5.0 U
Copper	mg/kg	1.3 B J	0.69 J	0.69 B J	2.5 U
Cyanide (total)	mg/kg	--	0.31 J	--	--
Iron	mg/kg	1200	661	686	10.0 U
Lead	mg/kg	15.5	2.8	2.3	--
Magnesium	mg/kg	32.2 B J	ND(500)	6.5 B J	1.1 J
Manganese	mg/kg	4.0	5.0	3.8	0.10 UJ
Mercury	mg/kg	ND(0.10)	ND(0.10)	ND(0.10)	0.43 J
Nickel	mg/kg	0.87 B	1.2 J	1.3 B	--
Potassium	mg/kg	24.6 B J	ND(500)	24.2 B J	0.32 J
Selenium	mg/kg	0.50	0.43 J	0.30 B	1.0 U
Silver	mg/kg	ND(1.0)	ND(1.0)	ND(1.0)	--
Sodium	mg/kg	86.6 B	ND(500)	ND(500)	0.69 J
Thallium	mg/kg	0.50 B	ND(1.0)	0.37 B	3.7 J
Vanadium	mg/kg	0.27 B	0.54 J	0.41 B	55.7
Zinc	mg/kg	5.9	8.5	6.0	--
TCLP Metals					--
Arsenic	mg/L	ND(0.50)	--	ND(0.50)	--
Barium	mg/L	ND(10.0)	--	ND(10.0)	--
Cadmium	mg/L	0.87	--	ND(0.10)	--
Chromium Total	mg/L	34.4	--	45.5	--
Lead	mg/L	9.6	--	2.8	--
Mercury	mg/L	ND(0.033)	--	ND(0.033)	--
Selenium	mg/L	ND(0.50)	--	ND(0.50)	--
Silver	mg/L	ND(0.50)	--	ND(0.50)	--
PCBs					
Aroclor-1016 (PCB-1016)	mg/kg	ND(10)	ND(5000)	ND(100)	2 U
Aroclor-1221 (PCB-1221)	mg/kg	ND(10)	ND(5000)	ND(100)	2 U
Aroclor-1232 (PCB-1232)	mg/kg	ND(10)	ND(5000)	ND(100)	2 U
Aroclor-1242 (PCB-1242)	mg/kg	ND(10)	ND(5000)	ND(100)	30
Aroclor-1248 (PCB-1248)	mg/kg	ND(10)	ND(5000)	ND(100)	2 U
Aroclor-1254 (PCB-1254)	mg/kg	ND(10)	ND(5000)	ND(100)	21
Aroclor-1260 (PCB-1260)	mg/kg	87	15000	1000	51
10 Petroleum Hydrocarbons					
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	--	--	--	650000
General Chemistry					
Heating value	Btu/lb	--	--	--	16400
Ignitability	deg f	>180	--	>180	102
pH Corrosivity	S.U.	6.0	--	6.0	--
Reactive Cyanide	mg/kg	ND(200)	--	ND(200)	--
Reactive Sulfide	mg/kg	ND(500)	--	ND(500)	--
Specific gravity	mg/L	--	--	--	0.89
Viscosity	cp	--	--	--	32.5

Notes:
B Method blank contamination
J The associated value is an estimated quantity
ND ( ) Not detected above the value in parenthesis
TCLP - Toxicity characteristic Leachate Procedure
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
PCBs - Polychlorinated Biphenyls

TABLE 3.6

DRAFT FOR REVIEW

TEST PIT SUMMARY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Test Pit Designation	Description	Drum Waste Disposal Comments
6/3/2003 - Utility Investigation		
PAOC 19 - CVO Site Groundwater		
TP19-01	Test pit was completed to investigate the location of the former diesel line and to evaluate the condition of the soils	–
TP19-02	Test pit was completed to investigate the location of the former diesel line and to evaluate the condition of the soils	
TP19-03	Test pit was completed to investigate the sewer bedding.	
TP19-04	Test pit was completed to investigate the a former sink hole locations	
TP19-05	Test pit was completed to investigate the location of the former diesel line and to evaluate the condition of the soils	
TP19-06	Test pit was completed to investigate the location of the former diesel line and to evaluate the condition of the soils	
9/1/2004 - Buried Waste Investigation		
PAOC 18 - Outfall NAPL Area - Buried Waste Investigation		
TP18-01	No DNAPL was observed Ceramic tile at 5.5 ft bgs Debris, strong odor, solidified sludge material at 8.0 ft bgs	–
TP18-02	No DNAPL was observed Steel 2" line at 2.0 ft bgs Debris, steel at 3.5 ft bgs	–
TP-N/TP18-03	Black staining, debris, plastics, papers, and glass bottles at 6.0 ft bgs	–
TP-A/TP18-04	Steel drum ring at 2.0 ft bgs Steel drum (soil/sludge), poor condition at 5.0 ft bgs	Drums were overpacked and were disposed as characteristically hazardous waste (TCE and VC).
TP-A/TP18-05	Debris and metal shavings at 5.0 ft bgs Steel drum (55-gallon, oily wastewater) at 8.0 ft bgs	
TP-B/TP18-06	Steel drum (soil/sludge) poor condition at 3.5 ft bgs Steel drum, 1/4 full solvent, at 6.0 ft bgs 2' steel and miscellaneous debris at 7.0 ft bgs	
5/1/2005 - Buried Waste Investigation		
PAOC 18 - Outfall NAPL Area		
TP-C	No debris found	–
TP-C3	A 2"x2' steel pipe at 2.1 ft bgs Three large pieces of concrete at 3.0 ft bgs	–
TP-D1	Two pieces of 2" diameter steel pipes and trace metal scraps at 2.5 ft bgs	–
TP-D2	Trace metal scraps and screen material at 2.0 ft bgs A copper grounding rod (6' long and 1" diameter) at 2.5 ft bgs	–
TP-E	Trace steel scraps (pipes) at 1.0 ft bgs	–
TP-F	One piece of scrap iron at 1.8 ft bgs	–
TP-G	One piece of concrete and rebar at 4.0 ft bgs	–
TP-H	No debris found	–
TP-A36	A steel drum lid at 1.0 ft bgs	–
TP-A38	A steel plate at 0.9 ft bgs An electrical conduit debris at 1.3 ft bgs A telephone pole remnants at 1.6 ft bgs	–
TP-A39	Miscellaneous metal scraps at 2.8 ft bgs	–
TP-A60	No evidence of debris or product	–
Trench 1	Faint odors, slight sheen, and moist soils at 10.0 ft bgs	–
Trench 2	No debris was found	–
PAOC 23 - 1949 Fill Area		
TP-A30	Yellow paint stain, solid paint waste, concrete pieces, wood remnants, and tin cans between 1.6 and 8.8 ft bgs A 55 gallon drum with 25 gallons of product/water at 5.5 ft bgs Stained soils (trace NAPL residue) at 5.7 bgs	Drum was overpacked and disposed as characteristically hazardous waste (TCE, VC, lead, chromium, and ignitability).
TP-A31	Yellow paint sludge, wood, and plastic debris between 1.6 and 6.5 ft bgs A 35 gallon drum with stained soils at 2.5 ft bgs A 35 gallon drum with stained soils at 3.0 ft bgs A 35 gallon drum with 10-15 gallons of DNAPL product at 4.5 ft bgs A 55 gallon drum with 20-25 gallons of DNAPL product at 5.5 ft bgs	Drums were overpacked and were disposed as characteristically hazardous waste (TCE, benzene, VC, chromium, lead, cadmium, and ignitability). One drum was disposed as haz-TSCA waste.

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TABLE 3.6

TEST PIT SUMMARY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Test Pit Designation	Description	Drum Waste Disposal Comments
PAOC 29 - Kaiser Frazer Dump Area		
TP-I	Two empty partial drums between 2.0 and 3.0 ft bgs A partial drum with black and oily sludge at 4.0 ft bgs 2" steel cables, steel tire rims, drive chain, glass, plastics, truck rotor, solidified paint sludges (purple), slag, rubber gaskets, and miscellaneous scrap metals between 1.1 and 7.7 ft bgs	Drums were overpacked and were disposed as characteristically hazardous waste (cadmium, chromium, and lead).
TP-J	Steel wiring, springs, a 2" diameter steel pipe, wood blocks, and trace slag between 1.2 and 4.0 ft bgs	–
TP-K	Fragments of 3-4 decayed drums, broken glass bottles, steel meshing, steel wiring, slag, trace paint solids (yellow), and steel wiring between 1.0 and 6.3 ft bgs	–
TP-L	2"-4" diameter steel pipes, 2" diameter steel cables, springs, yellow/purple paint solids, concrete bricks, and partial steel drum remnants between 0.8 and 7.0 ft bgs All corners of the test pit contained debris	Drums were overpacked and were disposed as characteristically hazardous waste (cadmium, chromium, and lead).
TP-M	Steel scraps, drum rim, solid yellow paint sludges, rubber gaskets, wood, plastics, clear glass, bricks, paper products, trace slag, and drum remnants between 1.0 and 7.0 ft bgs	–
TP-A1	Bricks, concrete, glass, clear vinyl, trace slag, and wood debris between 1.2 and 5.0 ft bgs	–
TP-A4	Bricks, concrete blocks (refractory bricks) between 1.2 and 2.6 ft bgs	–
TP-A5	Trace metal scraps and trace black tar between 1.3 and 3.0 ft bgs A solid black tar layer between 2.0 and 2.6 ft bgs	–
TP-A6S	A partial drum with 2-3 gallons of black tar at 2.5 ft bgs A dry partial drum at 4.0 ft bgs Metal scraps, 6" diameter steel pipes, cardboards, plastics, trace black sludge between 1.5 and 6.0 ft bgs A solidified black tar layer between 6.0 and 7.8 ft bgs	Drum was overpacked and was disposed as characteristically hazardous waste (lead).
TP-A6S2	Trace metal scraps between 1.3 and 1.9 ft bgs	–
TP-A6N	A partial dry drum at 3.0 ft bgs Metal scraps, angle iron, plastics, cardboard, cement bricks, trace black solids, and trace solid tar between 1.3 and 5.7 ft bgs	–
TP-A13	Concrete and steel rebar remnants between 1.6 and 4.0 ft bgs	–
TP-A22	A partial steel drum remnants at 0.6 ft bgs	–
TP-A23	A partial steel drum lid at 1.2 ft bgs	–
TP-A32	Plastics, cardboards, shavings, glass bottles, solidified paint solids, bricks, wood, steel rods, metal scraps, slag, and concrete pieces between 0.7 to 7.0 ft bgs	–
TP-A33	Metal shavings, steel rods, glass, plastics, concrete, bricks, and trace paint sludges between 0.3 and 3.0 ft bgs,	–
TP-A35	Miscellaneous car parts, shocks, cross members, u-bolts, driveshaft, center bracket, wire harness, tubular copper products, transmission linkages, lugnut wrench, battery box, center carrier bearings, wood blocks, and General Motors Chevrolet Division labels between 1.3 and 5.8 ft bgs	–
TP-A48	Metal shavings, glass, steel fencing, plastics, springs, rubber gaskets, and miscellaneous metal scraps between 1.1 and 8.2 ft bgs	–

Notes: ft - feet
bgs - below ground surface
NAPL - non-aqueous phase liquid
DNAPL - dense non-aqueous phase liquid
TCE - Trichloroethylene
VC - Vinyl Chloride
TSCA - Toxic Substance Control Act

DRAFT FOR REVIEW

TABLE 3.7

STORMWATER SAMPLE RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC			
Sample Location:		***OutFall #11***	***OutFall #11***
Sample ID:		***GW-17303-120303-DCR-274***	***GW-17303-DCR-121003***
Sample Date:		***12/03/2003***	***12/10/2003***
Sample Type:		***Dry Weather***	***Wet Weather***
Parameter:	***Units***		
VOCs			
1,1,1,2-Tetrachloroethane	mg/L	-	-
1,1,1-Trichloroethane	mg/L	0.02 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.02 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.02 U	0.001 U
1,1-Dichloroethane	mg/L	0.02 U	0.001 U
1,1-Dichloroethene	mg/L	0.02 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-
1,2,4-Trichlorobenzene	mg/L	0.1 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.02 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.02 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.02 U	0.001 U
1,2-Dichloroethane	mg/L	0.02 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-
1,2-Dichloropropane	mg/L	0.02 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-
1,3-Dichlorobenzene	mg/L	0.02 U	0.001 U
1,3-Dichloropropene	mg/L	-	-
1,4-Dichlorobenzene	mg/L	0.02 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.5 U	0.025 U
2-Hexanone	mg/L	1 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	1 U	0.05 U
Acetone	mg/L	0.5 U	0.025 U
Benzene	mg/L	0.02 U	0.001 U
Bromodichloromethane	mg/L	0.02 U	0.001 U
Bromoform	mg/L	0.02 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.02 U	0.001 U
Carbon disulfide	mg/L	0.1 U	0.005 U
Carbon tetrachloride	mg/L	0.02 U	0.001 U
Chlorobenzene	mg/L	0.0049 J	0.001 U
Chlorobromomethane	mg/L	-	-
Chloroethane	mg/L	0.02 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.02 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.02 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.5	0.0037
cis-1,3-Dichloropropene	mg/L	0.02 U	0.001 U
Cyclohexane	mg/L	0.02 U	0.001 U
Dibromochloromethane	mg/L	0.02 U	0.001 U
Dibromomethane	mg/L	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.02 U	0.001 U
Ethyl ether	mg/L	-	-
Ethylbenzene	mg/L	0.02 U	0.001 U
Iodomethane	mg/L	-	-
Isopropyl benzene	mg/L	0.1 U	0.005 U
Methyl acetate	mg/L	0.2 U	0.01 U
Methyl cyclohexane	mg/L	0.02 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.1 U	0.005 U
Methylene chloride	mg/L	0.1 U	0.005 U
m-Xylene	mg/L	-	-
Naphthalene	mg/L	-	-
N-Propylbenzene	mg/L	-	-
o-Xylene	mg/L	-	-
Styrene	mg/L	0.02 U	0.001 U
Tetrachloroethene	mg/L	0.02 U	0.001 U
Toluene	mg/L	0.02 U	0.00073 J
trans-1,2-Dichloroethene	mg/L	0.011 J	0.001 U
trans-1,3-Dichloropropene	mg/L	0.02 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-
Trichloroethene	mg/L	0.04	0.00044 J
Trichlorofluoromethane (CFC-11)	mg/L	0.02 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.02 U	0.001 U
Vinyl chloride	mg/L	0.39	0.0035
Xylenes (total)	mg/L	0.04 U	0.002 U

Notes
- The analyte is not analyzed
J - The associated value is an estimated concentration
U - Not present at or above the associated value

TABLE 4.1

DRAFT FOR REVIEW

RESPONSE ACTION SUMMARY TABLE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Interim Response Action	Area/PAOC	Timeframe	Description	Effectiveness	Additional Details
Chemical Oxidation	Northeast corner of the Haulaway Building (PAOC 23) & PAOC 18 NAPL Area	2001 - 2003	$KMnO_4$ was used to reduce concentrations of CVOCs in groundwater at two "hot spots" at Injection Areas 1 (PAOC 23) & 2 (PAOC 18). Four injections were completed between December 2001 and June 2002 with the intent to reduce concentrations to levels that would support natural attenuation.	CVOC concentrations decreased after each treatment and would then rebound. It was determined through additional investigation that hydrocarbon impacted material and DNAPL were acting as inhibitors and continuing sources, respectively and decreasing the effectiveness of the treatments.	Appendix H-1: Interim Response Status Report (CRA, 2002)
Soil IRA	East of Haulaway Building (PAOC 23)	July 2003	Soil excavation (dig and haul) was completed to remove LNAPL containing smear zone that was impacting performance of the $KMnO_4$ injections near Injection Area 1.	Soil IRA included the removal of LNAPL-impacted soil from a limited area.	Appendix H-2: Soil IRA Report (CRA, 2003)
Sheetpile Wall Installation	PAOC 18	October 2004	A 282 foot long sheetpile wall installed to prevent DNAPL migration into Tyler Pond. It was intended to be an interim solution for preventing DNAPL migration to Tyler Pond until a final remedy could be implemented. It was never designed/intended to prevent CVOC impacted groundwater from venting to Tyler Pond.	The sheetpile wall has prevented DNAPL from migrating to Tyler Pond.	Appendix H-3: Construction Completion Report (CRA, 2005)
DNAPL Recovery	PAOC 18	2004 to present	Regular (frequency has varied over the years), weekly, biweekly, automated etc, DNAPL recovery has occurred at several wells within the sheet pile wall area since 2004. As of the end of 2010, approximately 1450 gallons of DNAPL has been recovered, containerized and disposed of at a TSCA approved incinerator.	DNAPL recovery has continued to remove DNAPL from the subsurface, although DNAPL is still present.	Appendix H-4: DNAPL Recovery Summary
GS-6 Soil Removal	PAOC 18	October 2006	Red paint sludge debris was observed at GS-6 during installation of this GSI well. Monitoring well GS-6 was installed to evaluate GSI conditions; the results of this evaluation showed PCB impacts present in groundwater. These results were deemed to be the result of the paint sludge and other debris present upgradient of GS-6 and not representative of Site groundwater quality. To ensure that collected groundwater samples were representative of Site groundwater quality, an area measuring 18 ft L x 13 ft W x 3 ft D upgradient of GS-6 was excavated and replaced with inert fill material.	PCBs were not detected in sampling events after the replacement of monitoring well GS-6.	Appendix H- 6 : GS-6 Excavation Completion
Enhanced Bioremediation (EOS)	PAOC 18	April 2007	In response to the presence of cis-1,2-DCE and TCE groundwater venting to Tyler Pond at concentrations exceeding the final acute value criteria, CRA completed an injection of Edible Oil Substrate (EOS) to stimulate reductive dechlorination of CVOCs. EOS was injected at 16 locations creating a wall of reducing conditions perpendicular to groundwater flow.	The concentrations of TCE have decreased at all locations since 2007. Concentrations of cis-1,2-DCE and TCE remain above the final acute value criteria at the compliance point.	Appendix H-7: EOS Injection Groundwater Summary

DRAFT FOR REVIEW

TABLE 4.1

RESPONSE ACTION SUMMARY TABLE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Interim Response Action	Area/PAOC	Timeframe	Description	Effectiveness	Additional Details
Groundwater Interim Response Action - French Drain Installation	PAOC 18	July 2010	A french drain was constructed to mitigate the flow of seeping groundwater to Tyler Pond. It was constructed upgradient of the sheetpile barrier wall with the trench being approximately 18" wide. The collection trench (200 feet long) drains to a central sump at a pitch of approximately 1-2%. Surface and groundwater intercepted via the collection is channeled along a 4 inch diameter perforated HDPE pipe, which runs the entire length of the drain. The perforated pipe is buried within 12 inches of pea stone. The sump is equipped with a sump pump which pumps collected water to a frac tank located at the top of the bank for disposal. In June 2011 the frac tank became a equilization tank and carbon vessels were brought on-Site to treat the water to be discharged to the sanitary sewer.	During the dry 2010 summer months, the system recovered approximately 1,600 gallons per week. During the wet 2011 spring season, a high of 10,000 gallons per week was recovered. Based on a review of analytical data, the water recovered by the system (that would otherwise overflow the sheetpile wall) is similar in concentration to the water moving around the east end of the sheetpile wall.	Appendix H-5: French Drain Summary

Notes:
PAOC - Potential Area of Concern
CRA - Conestoga Rovers and Associates
DNAPL - Dense non-aqueous phase liquid
TSCA - Toxic Substance Control Act
EOS - Edible Oil Substrate
GSI - Groundwater Surface water Interface
CVOCs - Chlorinated Volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
DCE - Dichloroethylene
TCE - Trichloroethylene

APPENDIX A

REGULATORY CORRESPONDENCE

APPENDIX A

APPENDIX OF CONTENTS

APPENDIX A.1 PAOC CLOSURE LETTER

APPENDIX A.2 GROUNDWATER NOT IN AN AQUIFER EVALUATION AND APPROVAL

APPENDIX A.3 RCRA PART A PERMIT APPLICATION

APPENDIX A.1

PAOC CLOSURE LETTER

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

JACKSON DISTRICT OFFICE
STATE OFFICE BUILDING
301 E LOUIS GLICK HWY
JACKSON MI 49201-1556

December 10, 2001

Mr. Mark Napolitan
General Motors Corporation
MC 482-310-004
485 West Milwaukee
Detroit, Michigan 48202

Dear Mr. Napolitan:

SUBJECT: Audit of Corrective Actions
Closure Report Receipt Date: October 8, 2001
Confirmed Release Date: June 21, 1994
Location of Tank(s): Complete Auto Transit Site, 2625 Tyler Road, Ypsilanti, Washtenaw County, Michigan
Facility ID: 0-0008299

Under the authority of Section 21315 of Part 213, Leaking Underground Storage Tanks (LUST), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Department of Environmental Quality (DEQ), Storage Tank Division (STD), has conducted an audit of the corrective actions undertaken as the result of a release from an underground storage tank system at the subject site. The audit was conducted following receipt of a Closure Report submitted by Blasland, Bouck and Lee, Inc., Qualified Underground Storage Tank Consultant (QC), and certified by Ms. Amy Hoeksema, Certified Underground Storage Tank Professional.

The audit consisted of a review of district file documents. Based on this audit, the STD agrees with the conclusion by the QC that corrective actions at the site have been completed in accordance with Part 213. Corrective action at the site has resulted in Restricted use of the site based on a Tier 1 evaluation, utilizing institutional controls. A notice of corrective action has been recorded with the register of deeds for Washtenaw County as outlined in Section 21310a(1) of Act 451. The notice states that an industrial use is the basis of the corrective action selected by your QC. Any future change in the land use may necessitate further evaluation of potential risks to the public health, safety, and welfare and to the environment. The STD must be contacted regarding any proposed change in the land use.

Please note the following conditions:

When contaminated soil and/or groundwater as a result of a release of a regulated substance remains on site consistent with site closure requirements, the owner/operator

shall not remove or allow this soil and/or groundwater to be removed from the site to an off-site location without properly characterizing the soils and/or groundwater to determine that they can be lawfully relocated without posing a threat to the public health, safety, or welfare, or the environment. The determination shall consider whether the soil and/or groundwater is subject to regulations under Part 111, Hazardous Waste Management, of Act 451, and/or Part 115, Solid Waste Management, of Act 451.

Since the site closure relies on elimination of the groundwater pathway, groundwater contamination may remain above the Tier 1 Drinking Water Risk-Based Screening Levels in the shallow groundwater. Therefore the owner/operator or any other party shall not engage in any activities that would alter the conditions of site closure. This may include but may not be limited to the installation of borings, temporary or permanent monitor wells and water supply wells without proper precautions to prevent the cross-contamination of deeper aquifers. In addition, the owner/operator shall provide disclosure to potential purchasers or users of the property regarding the conditions of site closure.

All groundwater monitoring wells and other similar devices installed as part of the corrective action activities at the site must be properly abandoned when they are no longer needed for their original purpose or modified purpose. Abandonment should be completed in accordance with American Society of Testing Materials Standard D 5299-92, "Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities." Proper abandonment of groundwater monitoring wells and other potential conduits for contamination should be performed within 60 days after use has been discontinued.

This closure approval pertains only to the contamination associated with the confirmed release date(s) identified above. The DEQ expresses no opinion as to other contaminants beyond those identified and remediated as a part of the approved closure. The DEQ also makes no warranty as to the fitness of this site for any general or specific use. Prospective purchasers or users of this property are advised to use due diligence prior to acquiring or using this site to determine if their proposed land use might alter the conditions of the site closure and result in unacceptable risks to human health or the environment.

If you have any questions, please contact Mr. Terry Hiske, Project Manager, at the Jackson District Office, DEQ, STD, 301 East Louis Glick Highway, Jackson, Michigan, or at telephone number 517-780-7928.

Sincerely,

Lee Carter
Jackson District Supervisor
Storage Tank Division
517-780-7920

LC:lkg

cc: Blasland, Bouck and Lee, Inc.
Mr. Terry Hiske, DEQ

APPENDIX A.2

GROUNDWATER NOT IN AN AQUIFER
EVALUATION AND APPROVAL

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
JACKSON DISTRICT OFFICE

STEVEN E. CHESTER
DIRECTOR

September 1, 2004

Mr. Ken Richards
General Motors Worldwide Facilities Group
1996 Technology Drive
Troy Technology Park South Building A
482-356-319
Troy, Michigan 48083

Dear Mr. Richards:

SUBJECT: Groundwater Not in an Aquifer Evaluation
PAOC 18 Response Activities
Company Vehicle Operations Area, Former Willow Run Assembly Plant,
Washtenaw County

Attached please find a memorandum from our senior geologist, Mr. Leonard Lipinski, regarding your request for a determination of groundwater not in an aquifer at the Former Willow Run Assembly Plant in Washtenaw County. As Mr. Lipinski notes, we concur with your assessment that the shallow water bearing unit at the site would not be considered groundwater in an aquifer. However, as he also notes, the groundwater/surface water interface pathway does appear to be complete, and those criteria should be considered in any future remedial action plan.

In addition, I have had opportunity to review the work plan for *PAOC 18 Response Activities* dated August 23, 2004. The plan seems appropriate and I look forward to the results. Part 20[illegible], Environmental Remediation, of the Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended (Part 201), requires prompt action when free product is discovered at a site, and I am glad to see General Motors being very proactive to undertake these activities at this property.

I appreciate the opportunity to review this information. If you have any questions regarding these comments, please feel free to contact me at 517-780-7932.

Sincerely,

Peter T. Masson
Environmental Quality Analyst
Remediation and Redevelopment Division

Attachment

cc: Mr. R. Dowe Parsons, DEQ
Mr. Leonard Lipinski, DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

August 30, 2004

TO: Peter Masson, Project Manager
Remediation and Redevelopment Division
Jackson District

FROM: Leonard Lipinski, Senior Geologist
Remediation and Redevelopment Division
Jackson District

SUBJECT: General Motors Company Vehicle Operations (CVO) Facility
Determination of Groundwater not in an Aquifer

I have reviewed the July 9, 2004 submittal from General Motors requesting a determination that the groundwater in the upper sand unit at the CVO is not in an aquifer as defined in Part 201. Based on the information they submitted and my understanding of the geology, I agree that the groundwater in the upper sand unit is not in an aquifer. However, I think that any groundwater contamination in the upper sand unit has the potential to impact surface water and would be regulated according to the groundwater surface water interface criteria.

CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite #200, Plymouth, MI 48170
Telephone: 734-453-5123 Facsimile: 734-453-5201
www.CRAworld.com

July 9, 2004

Reference No. 17303

Mr. Peter Masson
Department of Environmental Quality
Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 48201-1556

Dear Mr. Masson:

Re: General Motors Company Vehicle Operations (CVO) Facility (Site)
Ypsilanti, Washtenaw County, Michigan

Conestoga-Rovers & Associates (CRA), on behalf of ENCORE, a wholly owned subsidiary of General Motors (GM), requests that the Michigan Department of Environmental Regulation (MDEQ), acknowledge that groundwater in the upper sand unit at the CVO Facility is not "groundwater in an aquifer" nor is it reasonably expected to transport a hazardous substance into an aquifer in a concentration that would exceed generic residential criteria. Therefore, pursuant to Rule 710(1) of the Administrative Rules for Part 201 of 1994 PA Act 451 as amended, exposure to groundwater by ingestion is not a relevant pathway that may otherwise need response activities at this location.

1.0 Introduction

The CVO Facility is approximately 15 acres in Ypsilanti, located on the eastern side of Washtenaw County, as shown in Figure 1 (Site). This location has been the subject of previous interim response activities to address environmental conditions at the Site. Numerous investigations and other response activities have also been undertaken to address conditions at other properties in the area.

A conclusion that groundwater at this location is "not in an aquifer" is appropriate given that per Part 201, as defined by Rule 101(d), an "aquifer" means a geological formation, group of formations, or part a formation capable of yielding a *significant* amount of water to wells or springs (*emphasis* added). Due to both site-specific hydrogeologic conditions, and other factors, groundwater at this location is clearly not significant in this context.

2.0 Hydrogeologic Conditions

Various direct observations of conditions at the Site, made through both site-specific and regional studies, provide evidence that groundwater is of very low yield, and not significantly connected to aquifers. Attachment 1 to this letter is a technical memorandum presenting these details and evidence of this condition.

3.0 Availability of More Reliable, Efficient, & Economical Alternate Water Supply Sources

Largely due to the low yield and low reliability of local groundwater at this location to serve as an adequate supply of water for consumption and other purposes, the Site and surrounding area is served by a municipal water supply by the Ypsilanti Community Utilities Authority.

4.0 Regulations Prohibiting Use of Shallow Groundwater

Michigan Water Well Construction and Pump Installation Code (1994 Revision, Part 127 of Act 368) requires that a minimum of 25 feet of coring be used in a water supply well (R325.1632 (3)), as does Michigan Department of Community Health (Rule 325.10818). Since the water-bearing unit is less than 25 feet thick, it would be a violation of State code to install a water supply well in the area of the Site.

Washtenaw County Engineering Guidelines for On-Site Sewage Disposal and Water Supply (May, 1976, Rev 5/77) requires that any water supply well be capable of yielding a minimum of seven gallons per minute for 2 hours of continuous pumping (X11.B.4.a). Based on data collected at the Site it is apparent that a supply well would not be capable of meeting this yield requirement and this would not be allowed according to County guidelines.

5.0 Adjacent Groundwaters Previously Acknowledged to Not be Aquifers

Groundwater at the Willow Run Creek Site, immediately north and east of the Site, and the Fons/Old Wayne Site, immediately to the south of the Site, exhibit groundwater conditions of similar character, which have been acknowledged by the state to not be aquifers.

6.0 Conclusion

Groundwater of the upper sand unit at the Site is not "in an aquifer" in the context of Part 201 of 1994 PA 451 as amended. Therefore, actions to address a potential for exposure to substances in the local groundwater through consumption are not required Part 201 response activities.

We look forward to your concurrence with this conclusion, and welcome any opportunity to discuss any questions you may have regarding the issue.

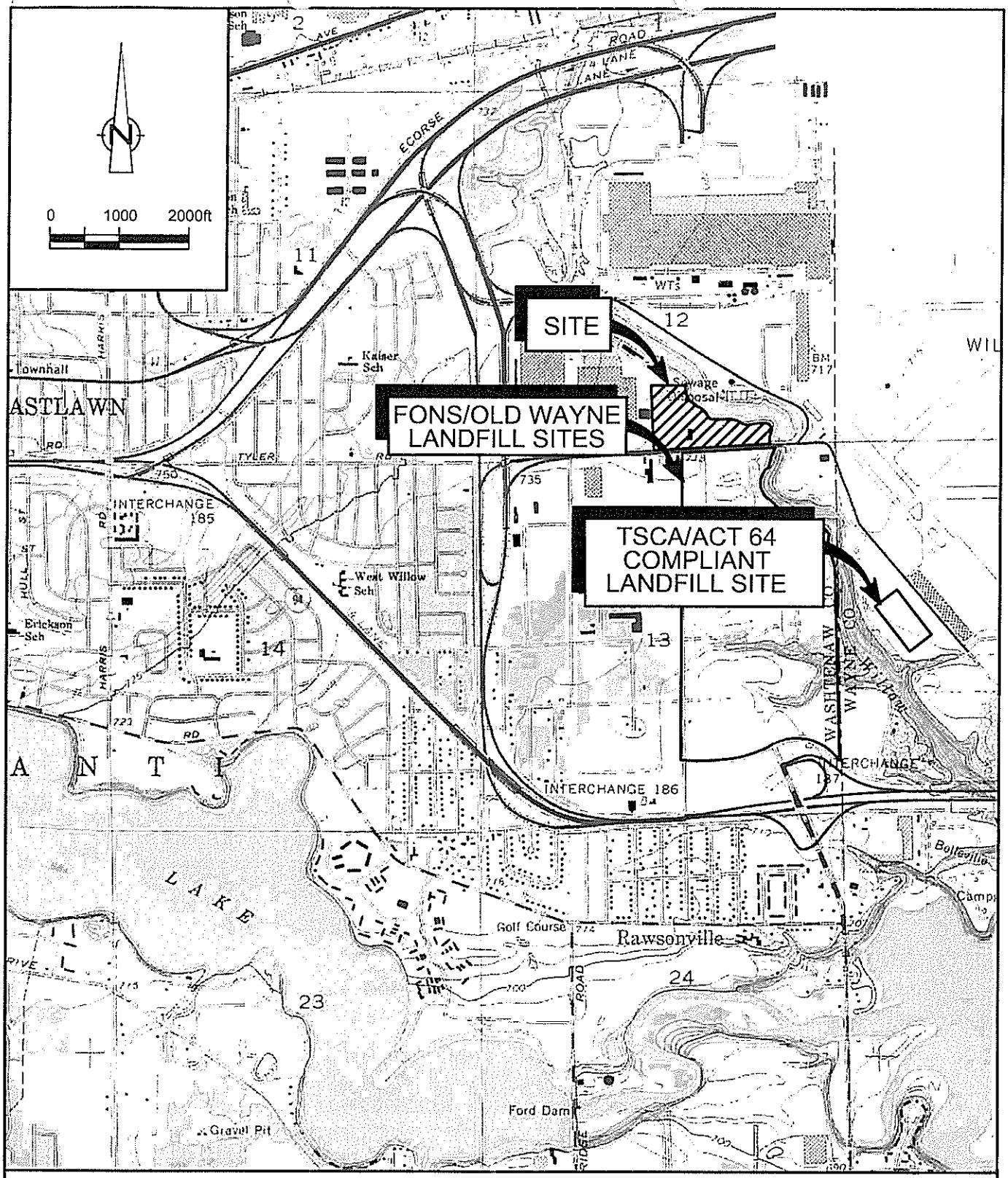
Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Fred W. Blickle P.E.

GK/bw/1/Lan.
Encl.

cc: Ken Richards, GM
Gary Klepper, CRA
Beth Landale, CRA



SOURCE: USGS QUADRANGLE MAP;
YPSILANTI EAST, MICHIGAN

figure 1

SITE LOCATION
EVALUATION AND ASSESSMENT OF UPPER SAND UNIT
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

ENCORE

YPSILANTI

17303-03(MEMO045)GN-DE001 MAY 21/2004

ATTACHMENT 1

TECHNICAL MEMORANDUM

GM CVO FACILITY
YPSILANTI, MICHIGAN

MEMORANDUM

EEC
Encore Environmental Consortium, LLC

To: Ken Richards/ENCORE

Date: May 21, 2004

From: Fred Blickle/
Gordon Hotchkiss/bw/45/Det.

cc: Gary Klepper/CRA
Beth Landale/CRA

Re: Groundwater Not In An Aquifer Evaluation
Assessment of Upper Sand Unit
GM CVO Facility, Ypsilanti, Michigan

Introduction

This technical memorandum was prepared by Conestoga-Rovers & Associates (CRA) for ENCORE, a wholly owned subsidiary of General Motors (GM) Corporation, to summarize hydrogeologic data collected from the GM Company Vehicle Operations (CVO) property in Ypsilanti, Michigan (Site). Specifically this information supports a "groundwater not in an aquifer" (GWNIAA) classification for shallow groundwater encountered in the upper sand unit at the Site (Figure 1).

This GWNIAA classification is based on documentation that demonstrates that an insignificant amount of water is present within the upper sand unit at the Site. The GWNIAA classification for the upper sand unit augments and supplements the GWNIAA classification obtained for the lower sand unit identified at the Fons/Old Wayne Landfill Sites that border the CVO Site to the south (CRA, 1995).

The GWNIAA classification for the upper sand unit is based on documentation that demonstrates that shallow groundwater, where present, is laterally discontinuous and not in hydraulic communication with groundwater in an aquifer. The majority of information used to support the GWNIAA was obtained during environmental investigations conducted at or adjacent to the Site.

Site Geology

The general geology at the CVO Site consists of five basic units. These units and their thickness are as follows, proceeding downward from land surface:

	Unit Name	Unit Thickness (Range)
1	a surficial fill	0 to 11.5 feet
2	an upper sand unit	8 to 15 feet
3	a lacustrine clay unit	50 to 85 feet

	Unit Name	Unit Thickness (Range)
4	a lower sand unit [a]	8 to 28 feet
5	a bedrock unit (Antrim Shale) [b]	> 100 feet

[a] Thickness range based on investigations on the adjacent Fons/Old Wayne property

[b] Thickness range based on published literature in the Hydrogeologic Atlas of Michigan

As shown, the upper sand unit, the lacustrine clay, the lower sand unit, and the Antrim Shale are present across the entire Site. The stratigraphic relationships between these units are depicted in the general geologic cross sections presented in Appendix A.

The composition of uppermost two units varies across the Site. The fill unit varies from fill sands and clays to construction debris and historical waste material. The upper sand unit generally consists of fine to medium grained sands with silts and gravels. Typical grain size distributions for the upper sand unit are presented on Table 1. The composition of the lacustrine clay generally consists of silty clays (Table 2). Based on off-Site investigation data, the lower sand unit in the vicinity of the Site is predominately a silty sand.

Site Hydrogeology

Two of the five units at the Site are considered water bearing (the upper and lower sand units) and two others are considered aquitards/aquicludes (the lacustrine clay and the Antrim Shale). The upper sand unit is the subject of investigation at the Site.

The upper sand unit contains limited groundwater that is typically encountered in unconfined conditions at very shallow depths (i.e., 8 to 10 feet). The saturated thickness varies with seasonal precipitation with a typical maximum thickness of approximately 8 feet. Due to engineering activities that dammed Willow Run Creek (creating Tyler Pond) and construction activities that built compacted clay banks along the edge of Tyler Pond, the horizontal hydraulic gradient of groundwater in the upper sand unit at the CVO Site is relatively flat. As shown on the cross sections in Appendix A, the horizontal hydraulic gradients range between 0.005 and 0.015 feet per foot. Based on 1999 slug tests conducted in wells screened in the upper sand unit the estimated hydraulic conductivity ranged from 4.31×10^{-6} centimeters per second (MW-12) to 1.12×10^{-2} centimeters per second (MW-14).

The lower sand unit contains limited groundwater that is encountered under semi-confined conditions at depths approximately 80 feet below grade. The saturated thickness near the Site is

up to 8 feet. Previous correspondence to the MDEQ has demonstrated that the saturated conditions of the lower sand unit were classified as GWNIAA (CRA, 1995).

A lacustrine clay unit (shown as Clay/Till Unit on Figure A-2) occurs between the upper and lower sand units. This unit is a poor source of groundwater and exhibits very slow percolation rates and very low recharge rates and acts as an aquitard/aquiclude for the lower sand unit. As shown in the boring logs for the three deepest soil borings completed at the Site (i.e., SB19-01, SB19-02, SB19-03), and a deeper boring completed directly adjacent to the Site (i.e., MW-6D-93), no water bearing horizons were observed in the clay-rich deposits (Appendix B).

The Antrim Shale is not a water bearing unit but the underlying limestone and dolomite bedrock formations of the Traverse Group are considered bedrock aquifers. Groundwater quality in these bedrock aquifers range from potable to highly mineralized depending on the depth of the source. Greater depths generally yield greater mineralized water.

Demonstration of No Hydraulic Communication

The lacustrine clay unit (Clay/Till Unit) acts as a low permeability layer that retards vertical migration of groundwater encountered in the upper sand unit. Based on off-Site laboratory testing, the typical vertical permeabilities of the lacustrine clay range from 1.26×10^{-8} to 4.31×10^{-8} centimeters per second (Table 3). The vertical permeabilities of the clay unit are low enough to act as a base to several hazardous waste landfills in the area (TSCA/Act 64 Compliant Landfill). Horizontal migration of groundwater in the upper sand unit is also limited by the flat hydraulic gradient and the clay banks of Tyler Pond. The base of Tyler Pond is at least 150 feet above the top of the first bedrock aquifer and separated from the potable water supply by the low permeability lacustrine clay and the Antrim Shale, which acts as a second aquitard protecting the bedrock aquifer. Based on investigation data, the groundwater of the upper sand unit does not recharge a drinking water aquifer and is not hydraulically connected to a drinking water aquifer.

Demonstration of Insignificant Yield

The combination of fine grained sand material, limited recharge rates, limited saturated thickness, limited lateral extent (saturation), and low migration potential make the groundwater of the upper sand unit unsuitable for potable water supply. These insignificant yields have been documented during monitoring well sampling activities that show perched groundwater is easily removed by pumping the fine grained sands and silts to temporarily dry conditions, suggesting that water in storage it is not easily replaced by a continuous groundwater yield from the formation.

Conclusions

Based on the information presented in this memorandum, the hydrogeologic conditions identified at GM's CVO Site meet two basic criteria to assign a GWNIAA classification to the groundwater encountered in the upper sand unit, which are:

- a demonstration that groundwater encountered in the upper sand unit at the Site yields an insignificant amount of water; and,

- a demonstration that groundwater within the upper sand unit is not in hydraulic communication with groundwater in the underlying bedrock aquifer.

It is intended that this document will be referenced in future investigation submittals to the MDEQ to eliminate the drinking water exposure pathways, including those associated with the "drinking water protection criteria".

References

Conestoga-Rovers & Associates. Hydrogeological Review of the Classification of the Intermediate Sand/Silt as an Aquifer. CRA Project No. 4048, Memorandum No. 29, 1995

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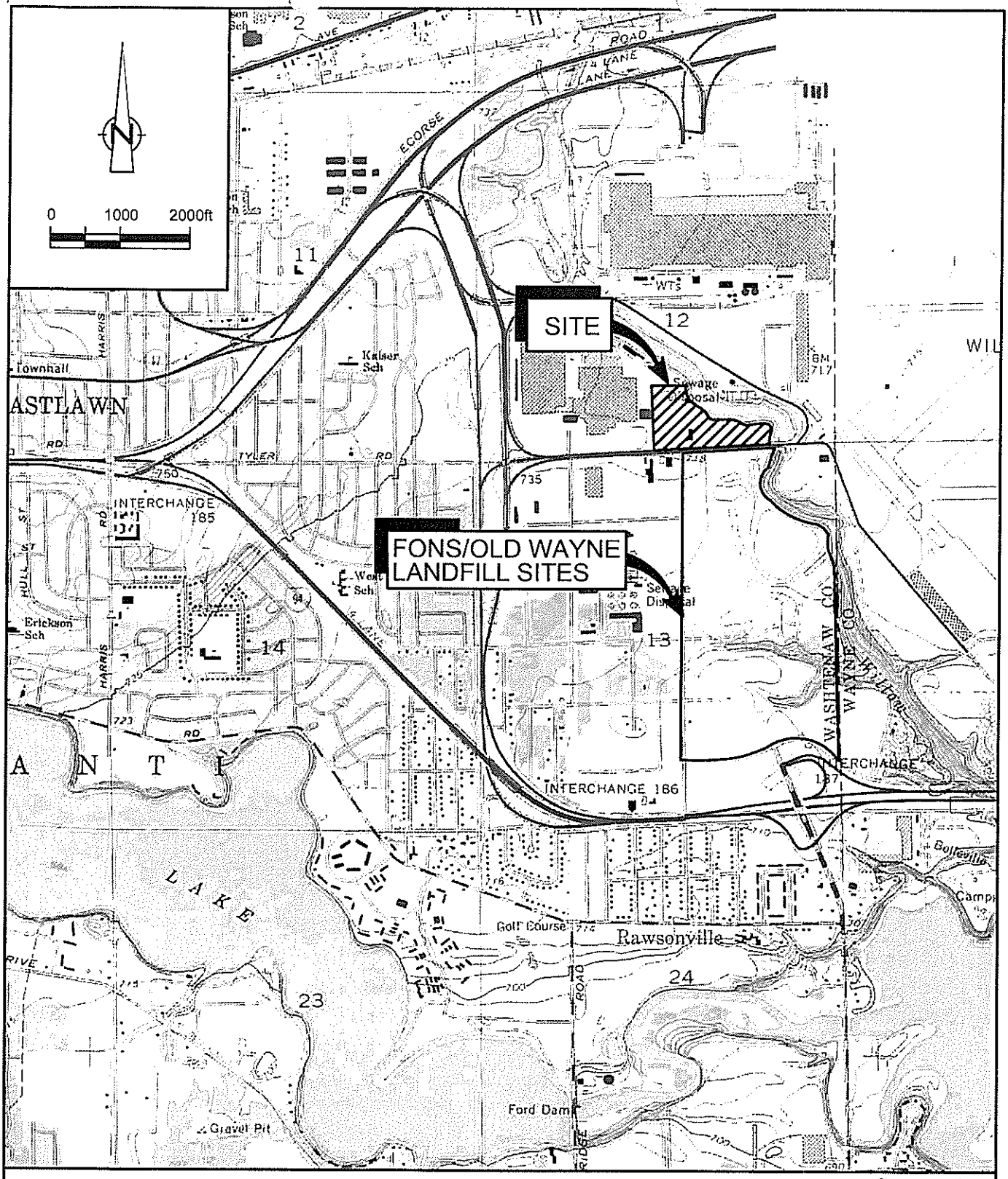
Lusch et al. Aquifer Vulnerability to Surface Contamination in Michigan. Michigan State University, 1992.

Twenter, F.R. Southeastern Michigan Water Resources Study, 1975.

United States Department of Agriculture. Soil Survey of Washtenaw County. Soil Conservation Service, 1977.

Western Michigan University. Hydrogeologic Atlas of Michigan, 1981.



SOURCE: USGS QUADRANGLE MAP;
YPSILANTI EAST, MICHIGAN

figure 1

SITE LOCATION
EVALUATION AND ASSESSMENT OF UPPER SAND UNIT
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

ENCORE

YPSILANTI

17303-03(MEMO045)GN-DE001 MAY 18/2004

TABLE 1

UPPER SAND UNIT GRAIN SIZE DISTRIBUTION
GWNIAA EVALUATION AND ASSESSMENT OF UPPER SAND UNIT
GM CVO FACILITY
YPSILANTI, MICHIGAN

Sample Location	Sample Depth (ft bgs)	Description	Soil Classification % Gravel	% Sand	% Silt	% Clay
SB19-01	12-13.4	SAND, trace gravel, trace silt	9	84	7	0
	13.4-15	SAND, trace gravel, trace silt	1	92	5	2
	21-23	Clayey SAND, little gravel	16	35	30	19
SB19-02	10.5-15	SAND, little silt	0	90	10	0
SB19-03	10.5-16	SAND, trace, gravel, little silt	7	81	10	2
SB19-04	10-15	SAND, little silt	0	85	15	0
	10.5-15	SAND, trace gravel, little silt	2	78	18	2
	13-16	SAND, little silt	0	83	15	2
SB19-05	9-11	SAND, some gravel, trace silt	30	60	9	1
SB19-06	5-7	SAND, trace gravel, little silt, SP-SM	9	76	13	2
SB19-07	9-11	SAND, trace gravel, some silt and clay	2	65	23	10
SB19-08	12-13	SAND, little gravel, little silt and clay	10	68	16	6
SB19-09	11-12'7"	SAND, little silt	0	83	15	2
SB19-10	12-15	SAND, trace silt	0	91	9	0
SB19-11	14-18	SAND, little silt	0	84	14	2
SB19-14	11'10" - 13'4"	SAND, some silt	0	72	26	2
	16'4"-18'9"	SAND, some silt	0	80	20	0
	10-15	Silty SAND	0	51	45	4
SB19-16	3-5	SAND, trace gravel, little silt	3	84	11	2
MW19-14	11-13	Gravelly SAND, little silt	35	50	14	1
MW19-15	9.5-13.5	SAND, trace gravel, trace silt	7	85	6	2
	12-15	SAND, trace gravel, little silt	2	86	10	2
MW19-23	12'9" - 14'4"	SAND, little silt	0	90	10	0
SB18-62	1.7-5.2	SAND, trace gravel, little silt	6	80	12	2
		Geometric Mean (%):	6	75	13	3

TABLE 2

LACUSTRINE CLAY GRAIN SIZE DISTRIBUTION
GWNIAA EVALUATION AND ASSESSMENT OF UPPER SAND UNIT
GM CVO FACILITY
YPSILANTI, MICHIGAN

Sample Location	Sample Depth (ft bgs)	Soil Classification Description	% Gravel	% Sand	% Silt	% Clay
SB19-01	21-23	Clayey SAND, little gravel	16	35	30	19
SB19-02	17-19	Silty CLAY, trace sand	0	8	56	36
SB19-03	17-19	Silty CLAY and SAND, trace gravel	8	35	38	19
SB19-05	0-2	Silty CLAY and SAND, trace gravel	3	45	35	17
SB19-07	11-12	Silty CLAY and SAND, trace gravel	6	37	35	22
	11-13	Silty CLAY, some sand, trace gravel	1	22	54	23
SB19-09	0.6-5	Silty CLAY and SAND	0	42	40	18
SB19-14	13'4"-15	Silty CLAY and SAND	0	35	59	6
	15-20	Silty CLAY, little sand	0	15	55	30
MW19-23	16-20	Silty CLAY, some sand, trace gravel	1	33	40	26
SB18-61	6-10	Silty CLAY, some sand, trace gravel	1	22	54	23
		Geometric Mean (%):	3	27	44	20

TABLE 3

LACUSTRINE CLAY PERMEABILITY SUMMARY
GWNIAA EVALUATION AND ASSESSMENT OF UPPER SAND UNIT
GM CVO FACILITY
YPSILANTI, MICHIGAN

Sample Location	Sample Depth (ft bgs)	Soil Description	Permeability (cm/sec)
SB18-61	6-10	Silty CLAY, some sand, trace gravel	2.48E-08
SB19-01	21-23	Clayey SAND, little gravel	2.38E-08
SB19-03	17-19	Silty CLAY and SAND, trace gravel	4.31E-08
SB19-07	11-13	Silty CLAY, some sand, trace gravel	1.26E-08
SB19-14	15-20	Silty CLAY, little sand	3.34E-08
MW19-15	9.5-13.5	Silty CLAY and SAND, little gravel	3.10E-08 **
MW19-23	16-20	Silty CLAY, some sand, trace gravel	1.35E-08
		Geometric Mean:	2.60E-08

Notes:

** Two distinct soil types were identified in MW19-15, 9.5 -13.5 ft bgs. Each soil was tested separately, except that only the clay fraction was tested for permeability.

APPENDIX A

GENERAL GEOLOGIC CROSS SECTIONS
GWNIAA EVALUATION & ASSESSMENT OF
UPPER SAND UNIT

GM CVO FACILITY
YPSILANTI, MICHIGAN

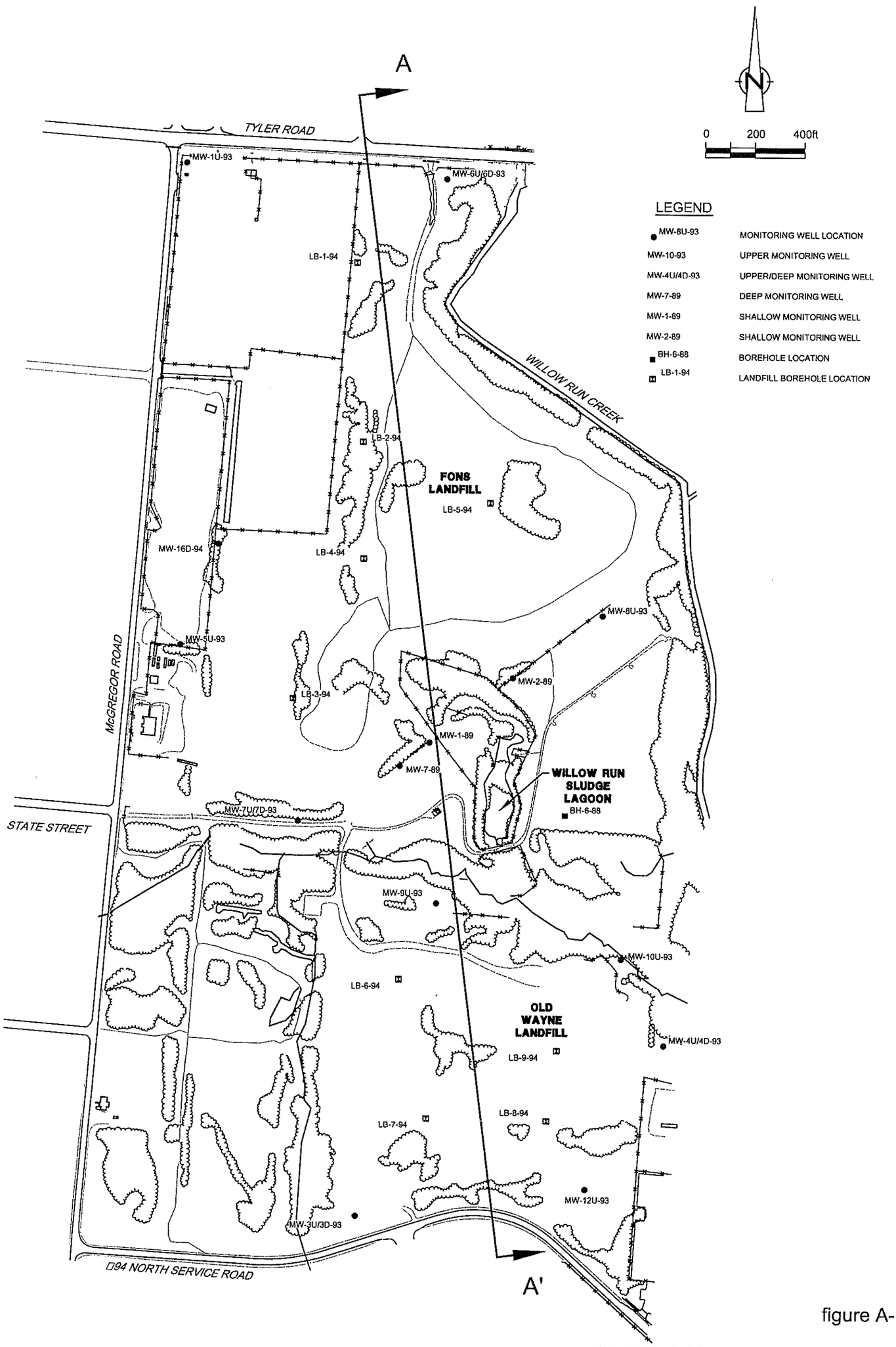


figure A-1

CROSS-SECTION LOCATION MAP
FONS/OLD WAYNE LANDFILL SITES
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

17303-03(MEMO045)GN-DE006 MAY 19/2004

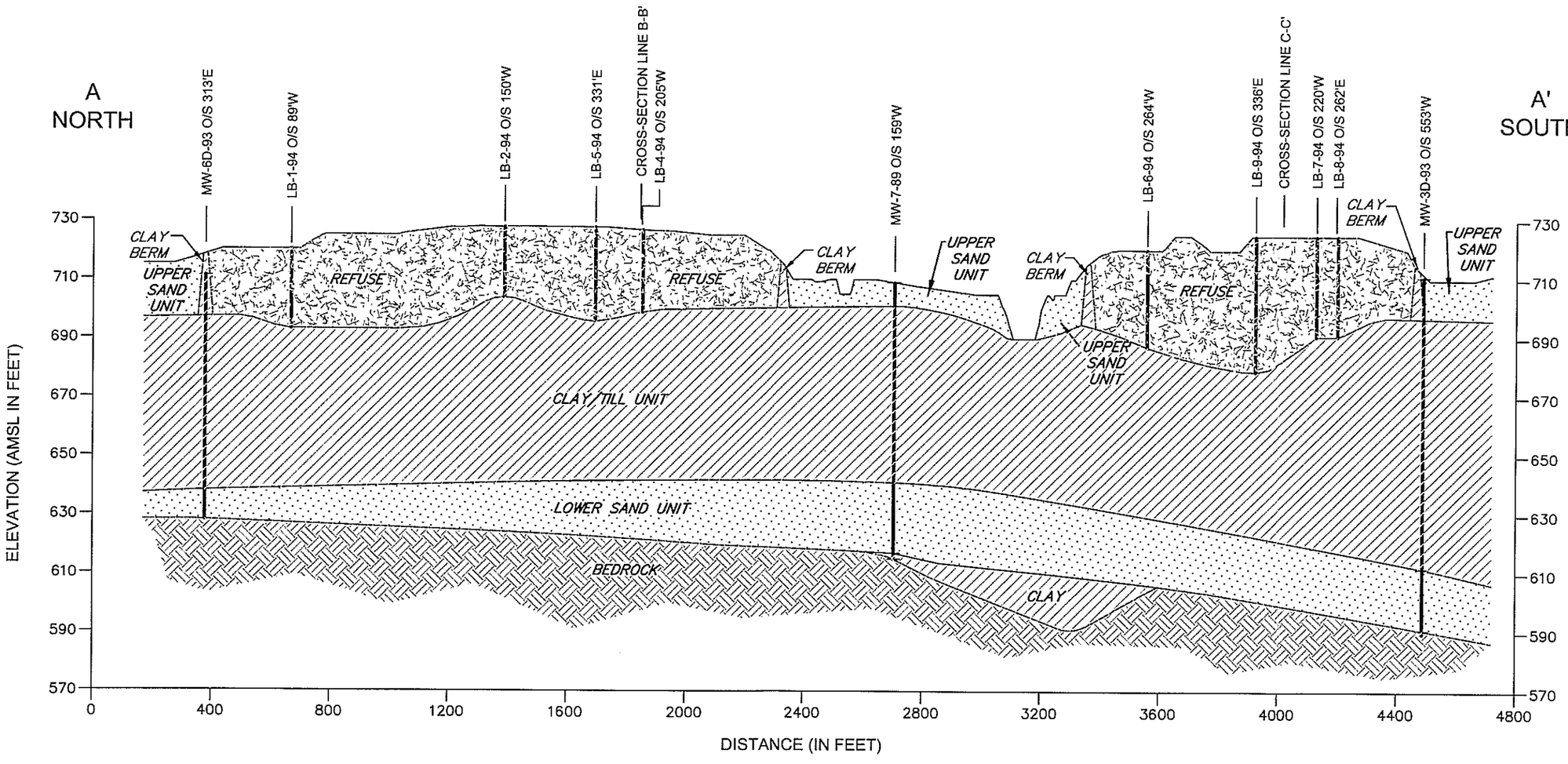
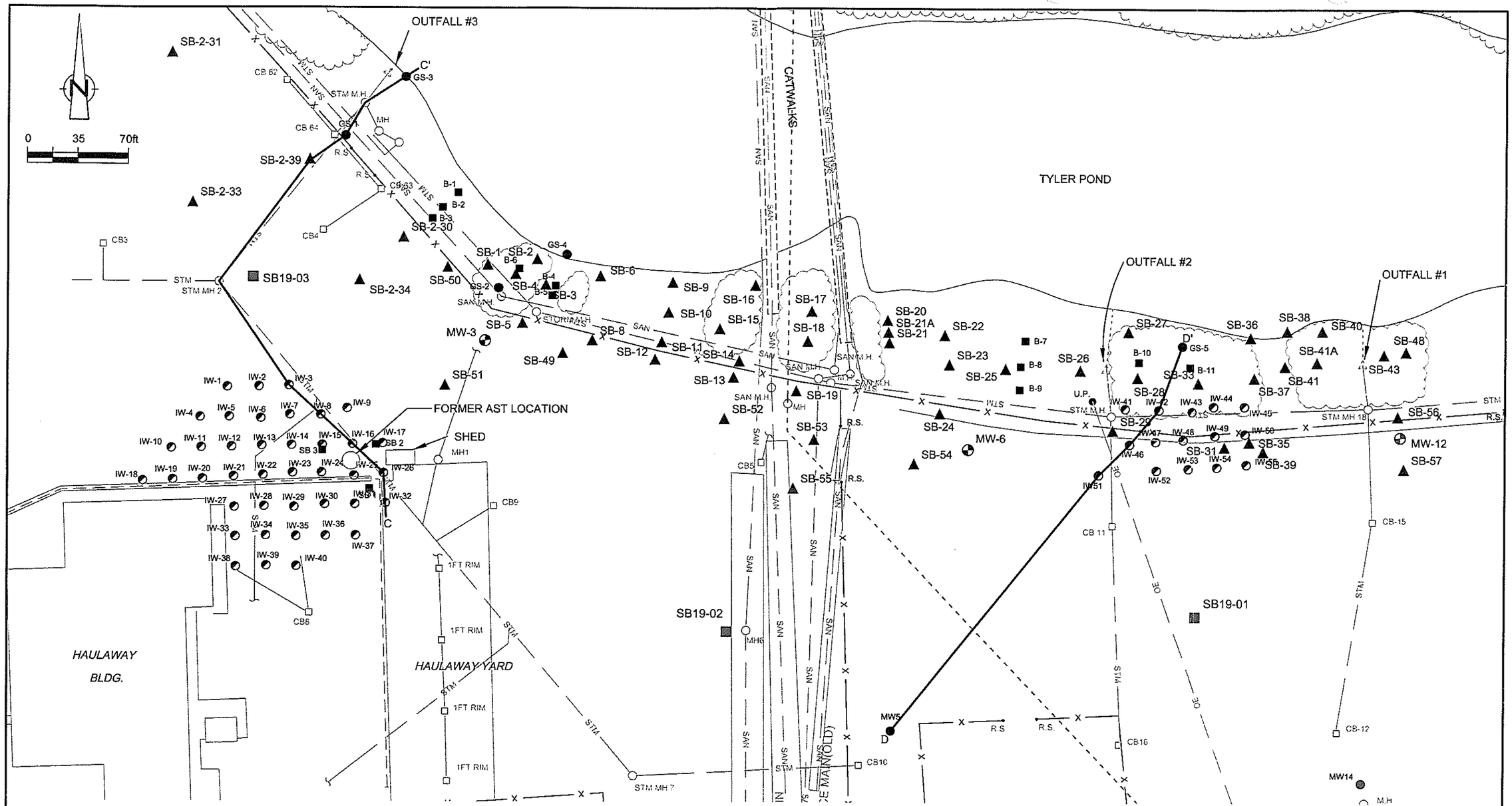


figure A-2

GENERALIZED REGIONAL CROSS-SECTION A-A'
FONS/OLD WAYNE LANDFILL SITE
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

17303-03(MEMO045)GN-DE005 JUL 07/2004



NOTES:

1) ALL UNDERGROUND UTILITIES AS SHOWN NEED TO BE FIELD VERIFIED.
2) LOCATION OF FORMER CYANIDE SLUDGE DISCHARGE LINE BASED ON HUBBELL, ROTH & CLARK, INC., FEBRUARY 1942, JOB 330G, SHEET 1.
3) LOCATION OF FORMER DIESEL FUEL LINE BASED ON BLASLAND, BOUCK & LEE, INC. 5/22/97, ATTACHMENT 4-10.

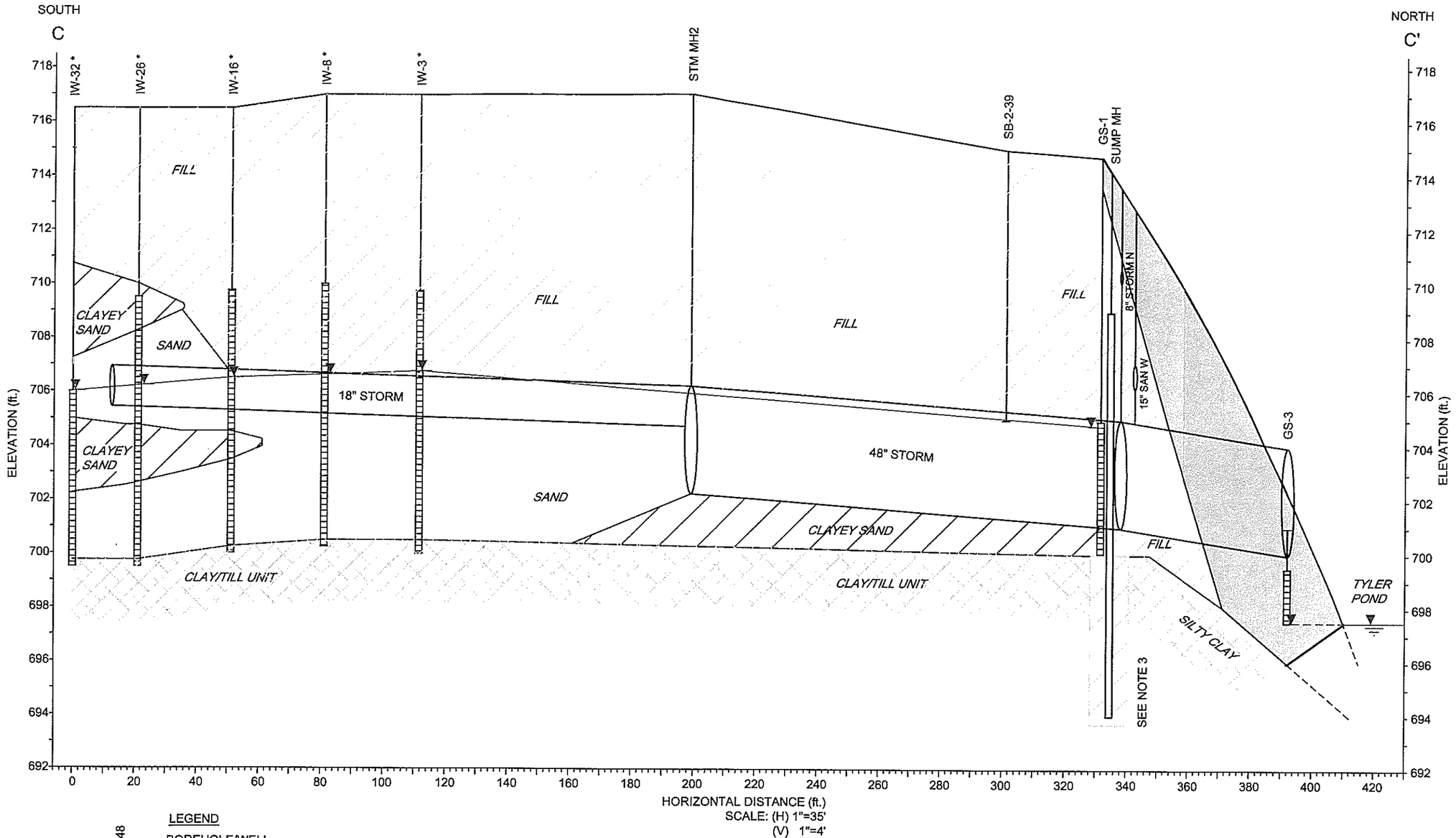
LEGEND

- DITCH, STREAM OR RIVER
- FENCE LINE (SURVEYED)
- TREE LINE
- FORMER DIESEL FUEL LINE
- INJECTION WELL LOCATION (CRA)
- STORM SEWER SHOWN AS PER SITE SITE UTILITIES UNDERGROUND PLAN JOB NO. 200 BMP2078.DWG
- MW-45 HISTORICAL
- SB-52 HISTORICAL BOREHOLE (BBL)
- B-1 BOREHOLE (SHALLOW, CRA)
- GS-3 MONITORING WELLS (CRA)
- STORM SEWER SHOWN AS PER INVERTS FOUND BY FIELD OBSERVATIONS, AUGUST 2002
- SLUDGE LINE
- CATCH BASIN (SURVEYED)
- MANHOLE (SURVEYED)
- PAVEMENT VARIATION (SURVEYED)
- U.P. UTILITY POLE (SURVEYED)
- R.S. FENCE GATE POST (SURVEYED)
- SB19-01 BOREHOLE (DEEP, CRA)

figure A-3

CROSS SECTION LOCATION MAP
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

17303-03(MEMO045)GN-DE002 MAY 19/2004



LEGEND

SB-48 — BOREHOLE/WELL IDENTIFICATION NUMBER

GROUND SURFACE

SCREENED INTERVAL

STATIC WATER LEVEL

SAND — STRATIGRAPHIC DESCRIPTION

STRATIGRAPHIC CONTACT

NOTES:

1. WATER TABLE APPROXIMATED FROM WELL MEASUREMENTS AND GS-4 WATER LEVEL RECORDED JUNE 2003.
2. TYLER POND ELEVATION RECORDED IN APRIL 2003.
3. APPROXIMATE 12 FOOT RECTAGULAR SUMP VAULT.

* SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED.

IMPORTED AND COMPACTED CLAY FROM 1998 POND DREDGING PROJECT

figure A-4

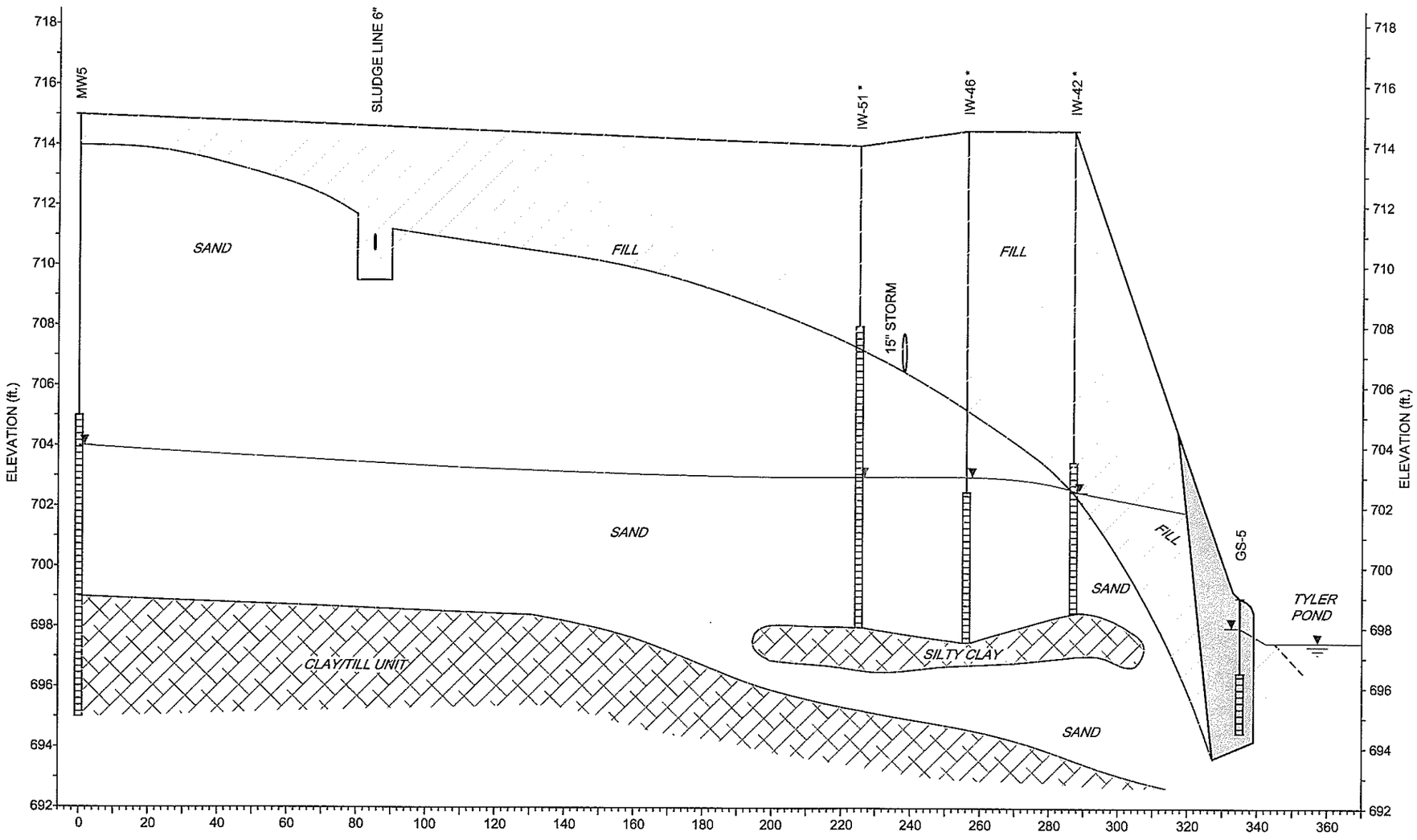
CROSS-SECTION C-C'
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

SOUTHWEST

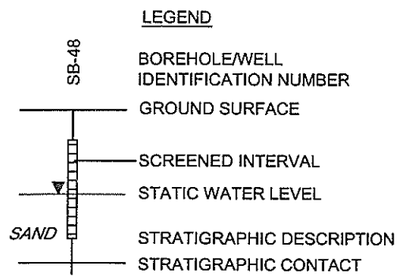
D

NORTHEAST

D'



HORIZONTAL DISTANCE (ft.)
SCALE: (H) 1"=35'
(V) 1"=4'



NOTES:

1. WATER TABLE APPROXIMATED FROM WELL MEASUREMENTS AND GS-4 WATER LEVEL RECORDED JUNE 2003.

2. TYLER POND ELEVATION RECORDED IN APRIL 2003.

* SAMPLES FOR LITHOLOGIC DESCRIPTION NOT COLLECTED

IMPORTED AND COMPACTED CLAY FROM 1998 POND DREDGING PROJECT.

figure A-5

CROSS-SECTION D-D'
CVO FACILITY
GENERAL MOTORS CORPORATION
Ypsilanti, Michigan

17303-03(MEMO045)GN-DE003 JUL 07/2004

APPENDIX B

SELECT SOIL BORING LOGS
GWNIAA EVALUATION & ASSESSMENT OF
UPPER SAND UNIT

GM CVO FACILITY
YPSILANTI, MICHIGAN

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(L-08)

PROJECT NAME: FONS / OLD WAYNE
PROJECT NO.: 5089
CLIENT: FOWRG
LOCATION: WASHTENAW COUNTY, MI.

HOLE DESIGNATION: MW6D-93
(Page 1 of 3)
DATE COMPLETED: MAY 4, 1993
DRILLING METHOD: 4 1/4" ID HSA
CRA SUPERVISOR: J. REID

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE N VALUE	SAMPLE HNU (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	713.19 711.4					
	For stratigraphy from 0.0 to 9.5 ft BGS see MW6U-93						
10.0	CL-CLAY, trace pebbles and coarse sand, gray, saturated	701.9		1SS		21	

2.5
5.0
7.5
12.5
15.0
17.5
20.0
22.5
25.0
27.5
30.0
32.5

10"ϕ STEEL CASING
CEMENT/ BENTONITE GROUT
2"ϕ STEEL CASING
8"ϕ BOREHOLE

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(L-08)

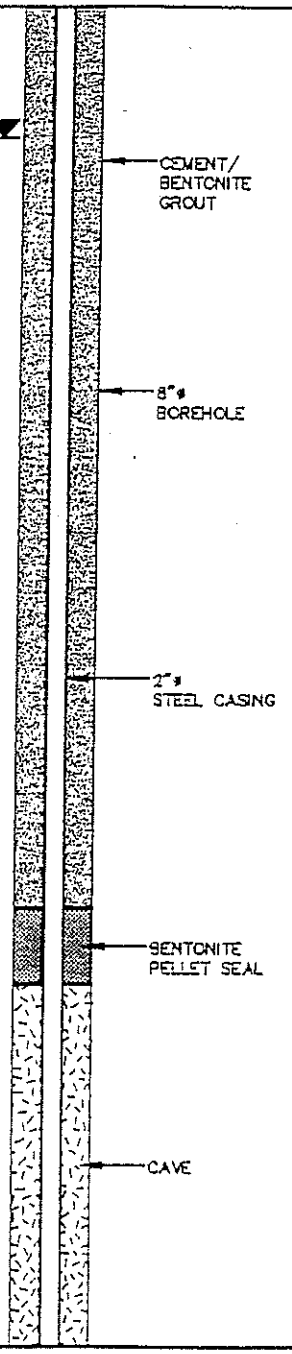
PROJECT NAME: FONS / OLD WAYNE
PROJECT NO.: 5089
CLIENT: FOWRG
LOCATION: WASHTENAW COUNTY, MI.

HOLE DESIGNATION: MW6D-93 (Page 2 of 3)
DATE COMPLETED: MAY 4, 1993
DRILLING METHOD: 4 1/4" ID HSA
CRA SUPERVISOR: J. REID

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE N VALUE	SAMPLE HNu (ppm)

35.0
37.5
40.0
42.5
45.0
47.5
50.0
52.5
55.0
57.5
60.0
62.5
65.0

675.5



NOTE: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ WATER FOUND ▽ STATIC WATER LEVEL ▼

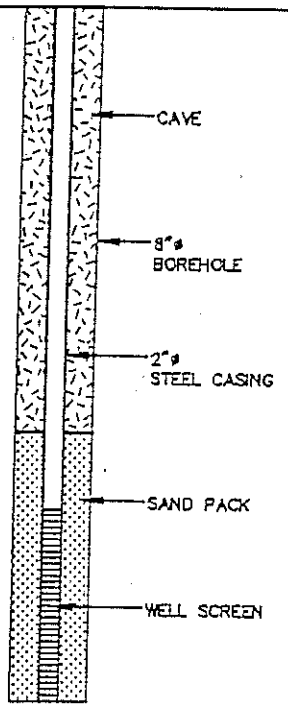
STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(L-08)

PROJECT NAME: FONS / OLD WAYNE
PROJECT NO.: 5089
CLIENT: FOWRG
LOCATION: WASHTENAW COUNTY, MI.

HOLE DESIGNATION: MW6D-93
(Page 3 of 3)
DATE COMPLETED: MAY 4, 1993
DRILLING METHOD: 4 1/4" ID HSA
CRA SUPERVISOR: J. REID

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE HNU (ppm)
67.5							
70.0							
72.5							
	SAND	618.4					
75.0							
77.5							
80.0							
82.5							
	BEDROCK – Shale, gray	628.4					
	END OF HOLE @ 83.0 FT. BGS						
85.0							
87.5							
90.0							
92.5							
95.0							
97.5							



SCREEN DETAILS:
Screened Interval:
78.0 to 83.0' BGS
Length –5.0'
Diameter –2.0"
Slot # 10
Material –Stainless Steel
Sand pack interval:
76.0 to 83.0' BGS
Material –Natural

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (○) WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-01
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE "N" VALUE	SAMPLE PID (ppm)
36						100		0.0
38				4MC		100		0.0
40	- trace coarse grained gravels at 39.0ft BGS					100		0.0
42				9MC		100		0.0
44						100		0.0
46								
48				10MC		100		0.0
50	END OF BOREHOLE @ 50.0ft BGS	50.00				100		0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 12/23/03

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-02
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.40
	GW-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained, angular, poorly graded, light gray, dry	0.90
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, dark brown, moist	3.00
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, yellowish brown, moist	
6	- 1" lens silts at 6.2ft BGS	
	- light brown at 7.2ft BGS	
8	- 2" lens fine grained gravels at 8.4ft BGS	
10	- wet at 10.5ft BGS	
	- 2" lens silty sands at 10.8ft BGS	
12		
14		
16		
	CI-SILTY CLAY, trace fine grained sands, trace fine grained rounded gravels, stiff, medium plasticity, gray, moist, homogeneous	16.70
18	- 1" lens sands and gravels at 17.1ft BGS	
20		
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION:
- 4" PVC CASING
- CEMENT BENTONITE GROUT
- BACKFILLED WITH CEMENT BENTONITE GROUT
- CLAY
- 2-1/2" BOREHOLE
- BACKFILLED WITH CEMENT BENTONITE GROUT

SAMPLE NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
1MC 0-2 -234		70		0.0
		70		0.0
2MC 4.5-10.5 -235		100		0.0
		100		0.0
3MC		90		0.0
		90		0.0
4MC		100		0.0
		100		0.0
5MC		100		0.0
		100		0.0
6MC		100		0.0
		100		0.0
7MC		100		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯ GRAIN SIZE ANALYSIS □

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 12/23/03

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-02
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE "N" VALUE	SAMPLE PID (ppm)
36	- sandy clay, very moist to wet at 35.2ft BGS - silty clay, trace fine grained gravels, moist at 36.0ft BGS					100		0.0
38	- trace coarse grained gravels at 38.5ft BGS			SMC		100		0.0
40						100		0.0
42				SMC		100		0.0
44						100		0.0
46						100		0.0
48				SMC		100		0.0
50	END OF BOREHOLE @ 50.0ft BGS	50.00				100		0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ GRA_CORP.GDT 12/23/03

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-03
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.40
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, poorly graded, light brown, dry	1.00
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist	
4	- 1/2" piece slag at 4.1ft BGS	
6		
8	- 3" lens clayey sands, very moist at 8.0ft BGS - medium grained, grayish brown at 8.5ft BGS	
10	- wet at 9.5ft BGS - fine grained at 10.0ft BGS	
12		
14	- dark gray at 13.0ft BGS	
16	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist, homogeneous	16.10
18		
20		
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION:
- 4" PVC CASING
- CEMENT BENTONITE GROUT
- BACKFILLED WITH CEMENT BENTONITE GROUT
- CLAY
- 2-1/2" BOREHOLE
- BACKFILLED WITH CEMENT BENTONITE GROUT

SAMPLE NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
1MC 0-2 -229		80		0.0
		80		0.0
2MC 7.5-9.5' -230		90		0.0
		90		0.0
3MC		100		0.0
		100		0.0
4MC		100		0.0
		100		0.0
5MC		100		0.0
		100		0.0
6MC		100		0.0
		100		0.0
7MC		100		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯ GRAIN SIZE ANALYSIS □

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 12/23/03

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-03
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE "N" VALUE	SAMPLE PID (ppm)
36						100		0.0
38				SMC		100		0.0
40						100		0.0
42	- trace coarse grained gravels at 42.5ft BGS			SMC		100		0.0
44						100		0.0
46								
48				10MC				0.0
50	END OF BOREHOLE @ 50.0ft BGS	50.00						0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (○) GRAIN SIZE ANALYSIS (□)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 12/23/03

APPENDIX A.3

RCRA PART A PERMIT APPLICATION

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F MID005356795 D

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

MID 005 356 795

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area*(s)* below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3) See Supplement 1		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: GENERAL MOTORS CORP BOC WILLOW RUN

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 RANDALL MICHAEL ENVIR ENGINEER	313 485 6191

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 2625 TYLER ROAD

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 YPSILANTI	MI	48197

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 2625 TYLER ROAD

B. COUNTY NAME: WASHTENAW

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 YPSILANTI	MI	48197	

RECEIVED
NOV 01 1984
WMD-RAIU
EPA, REGION V

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
3711 (specify) MOTOR VEHICLES AND CAR BODIES	NA (specify) NA
C. THIRD	**D. FOURTH**
NA (specify) NA	NA (specify) NA

VIII. OPERATOR INFORMATION

A. NAME

GENERAL MOTORS CORP - BOC WILLOW RUN

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

P (specify) NA

D. PHONE (area code & no.)

A 313 485 6191

E. STREET OR P.O. BOX

2625 TYLER ROAD

F. CITY OR TOWN

YPSILANTI

G. STATE MI

H. ZIP CODE 48197

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)	
9 N MI0043826	9 P NA	
B. UIC (Underground Injection of Fluids)	**E. OTHER (specify)**	(specify)
9 U NA	9 AIR PERMITS	SEE SUPPLEMENT 2
C. RCRA (Hazardous Wastes)	**E. OTHER (specify)**	(specify)
9 R WITHDRAWING	9 NA	NA

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

BUICK OLDSMOBILE CADILLAC DIVISION, WILLOW RUN, IS ENGAGED IN THE FINAL ASSEMBLY OF COMPLETE PASSENGER AUTOMOBILES. SPOT AND FUSION WELDING PROCESSES ARE USED TO ASSEMBLE AUTOMOBILE BODIES. PRIME AND COLOR PAINT PROCESSES ARE UTILIZED PRIOR TO FINAL ASSEMBLY OF NUMEROUS FABRICATED COMPONENTS HELD TOGETHER USING MECHANICAL FASTENERS.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
FRANK D. FAGA, PLANT MANAGER	Frank D. Faga	OCT 24 '84

COMMENTS FOR OFFICIAL USE ONLY

SUPPLEMENT 1

Facilities which appeared on the original Part A, submitted in November 1980, that are no longer regulated under RCRA, or are to be closed:

SO1, Storage in Containers, 154,280 gallons. Our actual operation experience indicates that although some hazardous waste have been stored more than 90 days under interim status, we have generally transported hazardous waste off-site within the 90 day limit and it is feasible under existing controls and plant procedures to remove these wastes in less than 90 days under the accumulation provisions of 40CFR262.34. We have submitted, with our amended Part A application, the closure plan covering these storage facilities being converted to the facilities of a generator accumulating waste for less than 90 days.

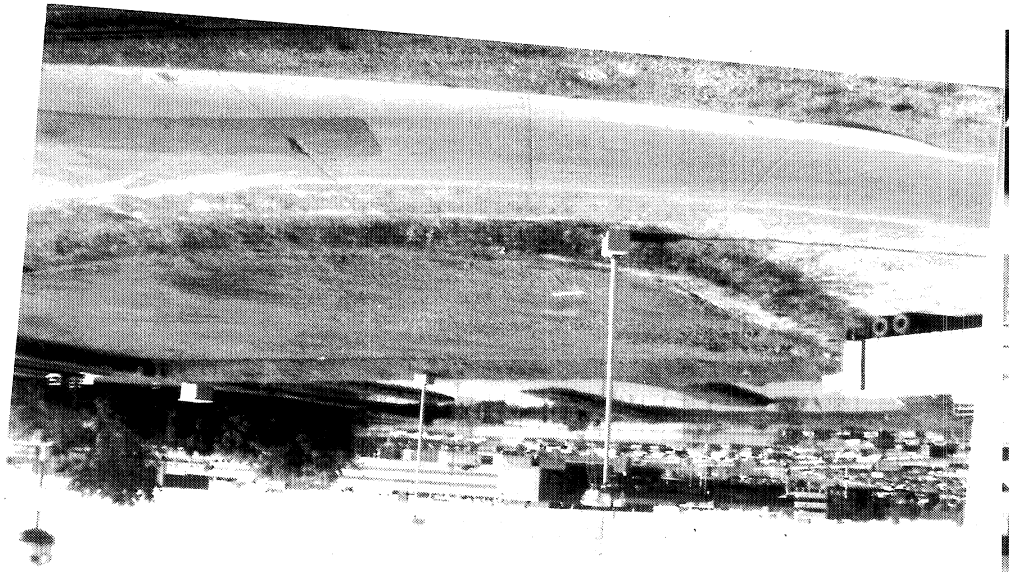
TO1, Treatment Tanks, 73,169,600 Gallons; TO4 Other Treatment, 723,000 gpd and; SO2, Storage in Tanks, 1,941,000 Gallons. On November 17, 1980, the EPA promulgated amendments that suspend the applicability of the requirements of the hazardous waste regulations in 40CFR Parts 122,164 and 265 to owners and operators of (1) wastewater treatment tanks that receive, store and treat wastewater from hazardous waste or that generate, store or treat a wastewater treatment sludge which is a hazardous waste where such wastewaters are subject to regulations under Section 402 or 307(b) of the Clean Water Act (33 U.S.C. 1251 et seq.).

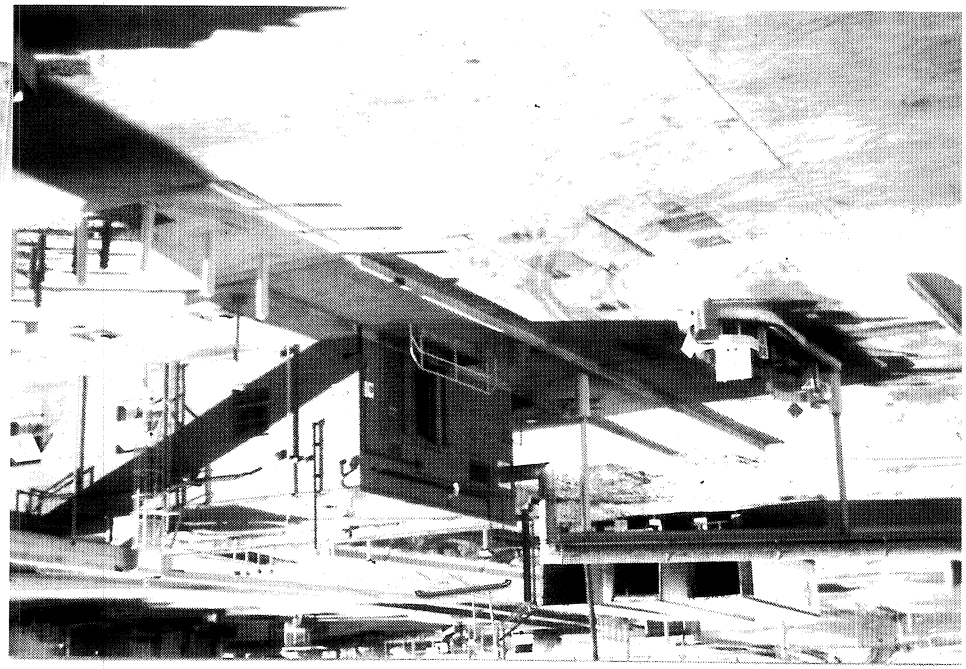
TO2, Treatment in Surface Impoundments, 600,000 gallons per day. B.O.C. Willow Run has submitted and received approval to begin closure of our existing lagoons. Closure is scheduled for October, 1984.

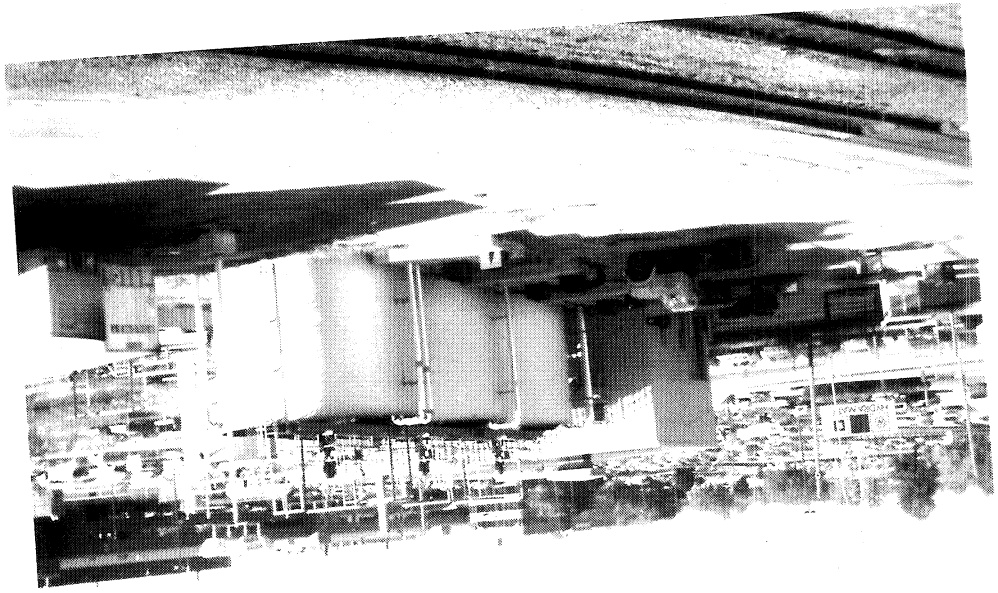
EPA GENERAL INFORMATION
FOR CONSOLIDATED PERMIT PROGRAM
FORM 1 ITEM 10E SUPPLEMENT SHEET 2

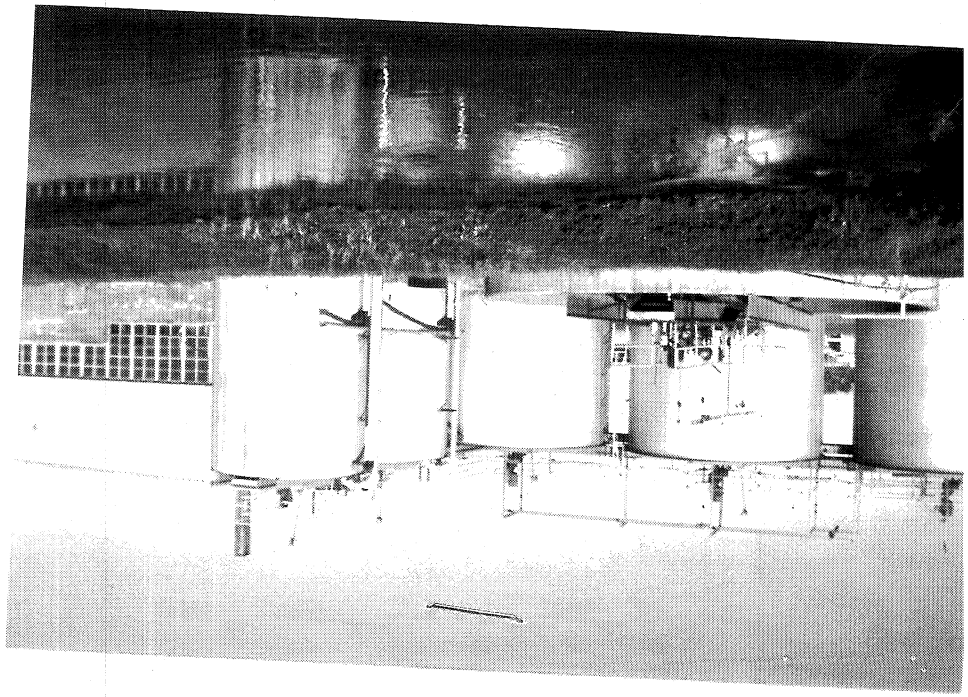
EXISTING AIR PERMITS
GENERAL MOTORS CORPORATION
GENERAL MOTORS ASSEMBLY DIVISION
WILLOW RUN PLANT
EPA I.D. NUMBER MID005356795

PERMIT DESCRIPTION	NUMBER
Centrally located Paint Shop Facility	246-84
Body Shop Permits -- Mig Weld Booths Body Frame, Right and Left Front Pillar Right and Left Center Pillar, Door Hinge and 85 ft. Body Mig Weld Booth	601-78
Solder Booth System	602-78
Gas/Oil Fired Boiler	605-78
Final Paint Repair System	247-78
Oleum Wipe-Off Booth	248-78
Vinyl Top Booth	249-78
Wheel Paint Spray Booth	250-78
Undercoat Booth	251-78
Steering Column Booth	252-78
Anti Rust Booth	253-78
Final Repair Wash Deck and Spoven	600-78
Erie City Gas/Oil Boiler	387-73
Erie City Gas/Oil Boiler	388-73









Please print or type in the unshaded areas only
(*All—in areas are spaced for elite type, i.e., 12 characters/inch*).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

															T/A	C
5	F	M	I	D	0	5	3	5	6	7	9	5			3	D
1	2											13			14	15

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

MID005356795

GENERAL MOTORS CORPORATION HYDRA-MATIC DIV.

~~2625 TYLER RD~~

YPSILANTI, MI 48197

~~2625 TYLER RD~~

YPSILANTI, MI 48197

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: GENERAL MOTORS CORP. ~~GMAD WILLOW RUN~~

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*		
2 RANDALL MICHEAL - ENVIR ENG	313	485	6206

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 2625 TYLER ROAD

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 YPSILANTI	MI	48197

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 2625 TYLER ROAD

B. COUNTY NAME

WASHTENAW

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 YPSILANTI	MI	48197	161

NOV 18 1980

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
3711 (specify) MOTOR VEHICLES AND CAR BODIES	NA (specify) N.A.
C. THIRD	**D. FOURTH**
NA (specify) N.A.	NA (specify) N.A.

VIII. OPERATOR INFORMATION

A. NAME

GENERAL MOTORS CORP. - GMAD WILLOW RUN

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

P (specify) N.A.

D. PHONE (area code & no.) A 313 485 6200

E. STREET OR P.O. BOX

2625 TYLER ROAD

F. CITY OR TOWN

YPSILANTI

G. STATE MI

H. ZIP CODE 48197

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water) 9 N NA	**D. PSD** (Air Emissions from Proposed Sources) 9 P NA
B. UIC (Underground Injection of Fluids) 9 U NA	**E. OTHER** (specify) 9 SEE LIST (specify) SEE LIST
C. RCRA (Hazardous Wastes) 9 R APPLYING	**E. OTHER** (specify) 9 NA (specify) N.A.

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

F9:A/50

XII. NATURE OF BUSINESS (provide a brief description)

General Motors Assembly Division, Willow Run is engaged in the final assembly of complete passenger automobiles. Spot and fusion welding processes are used to assemble automobile bodies. Prime and color paint processes are utilized. The final car assembly involves numerous fabricated components held together using mechanical fasteners.

F9:A/51

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
P. J. Coletta - GM Assembly Division Vice-President and General Manager	P J Coletta	11/17/80

COMMENTS FOR OFFICIAL USE ONLY

C

(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S													T/A	C
F	M	I	D	0	0	5	3	5	6	7	9	5	3	1

1 2 - 13 14 15

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS
23	24 - 29	

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)* (71)

[ ] 2. NEW FACILITY *(Complete item below.)* (71)

C 8 (15)

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

YR.	MO.	DAY
5 6 (73 74)	0 1 (75 76)	0 2 (77 78)

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY
(73 74)	(75 76)	(77 78)

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS (72)

[ ] 2. FACILITY HAS A RCRA PERMIT (72)

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. **PROCESS CODE** — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C).*

B. **PROCESS DESIGN CAPACITY** — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below):* A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S C — DUP — T/A 3 — C 1

(1 2 - 13 14 15)

LINE NUMBER	A. PROCESS CODE (from list above) (16 - 18)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) (19 - 27)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) (28)	FOR OFFICIAL USE ONLY (29 - 32)
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	S 0 1	154,280	G	
2	S 0 2	~~1,941,000~~ 194000000	G	
3	T 0 1	~~73,169,600~~ 7316960000	U	
4	T 0 2	600,000	U	

LINE NUMBER	A. PROCESS CODE (from list above) (16 - 18)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (19 - 27)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) (28)	FOR OFFICIAL USE ONLY (29 - 32)
5	T 0 4	723,000,000	U	
6				
7				
8				
9				
10				

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

T04	Central Sludge Dewatering Coil	200,000 000 U
T04	Wastewater Treatment Dewatering Coil	523,000 000 U

IV. DESCRIPTION OF HAZARDOUS WASTES

A. **EPA HAZARDOUS WASTE NUMBER** – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. **ESTIMATED ANNUAL QUANTITY** – For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. **UNIT OF MEASURE** – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE
POUNDS	P
TONS	T

METRIC UNIT OF MEASURE	CODE
KILOGRAMS	K
METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. PROCESS CODES:
   For listed hazardous waste: For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				*included with above*

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 char /inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S												T/A	C
F	M	I	D	0	0	5	3	5	6	7	9	5	3	1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

C	YR.	MO.	DAY
8	56	01	02

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G	
X-2	T03	20	E	
1	S01	154,280	G	
2	S02	~~1,941,000~~ 1941000000	G	
3	T01	~~73,169,600~~ 7316960000	U	
4	T02	600,000	U	
5	T04	723,000	U	
6				
7				
8				
9				
10				

CONTINUE ON REVERSE

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

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EPA I.D. NUMBER (enter from page 1): W M I D 0 0 5 3 5 6 7 9 5 T/A 3 C 1

FOR OFFICIAL USE ONLY: S W DUP T/A 3 C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F 0 0 1	55.0 0 0	T	S 0 1	
002	F 0 1 7	137.500	T	S 0 1	
003	F 0 0 3	137.500	T	S 0 1	Included with above
004	F 0 0 4				Included with above
005	F 0 0 5				Included with above
006	F 0 1 7	3900 000	T	S 0 2 T 0 1 T 0 4	
007	U 2 3 8	3900 000	T	S 0 2 T 0 1 T 0 4	Included with above
008	F 0 0 7				Included with above
009	F 0 0 9				Included with above
010	D 0 0 2				Included with above
011	D 0 0 8				Included with above
12	D 0 0 1	500 000	T	S 0 1 S 0 2	
13	D 0 0 2	24 000	T	S 0 1	
14	D 0 0 8	240 000	T	S 0 1	
15	F 0 0 8	12.0 0 0	T	S 0 1	
016	F 0 1 8	1500 000	P	T 0 2 S 0 1	
017	F 0 0 6	1500 000	P	T 0 2 S 0 1	Included with above
18					
19					
20					
21					
22					
23					
24					
25					
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WAS (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 2

NA

EPA I.D. NO. *(enter from page 1)*

S												T/A	C
F	M	I	D	0	0	5	3	5	6	7	9	5	3	6
1	2											13	14	15

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).* F 6-A/5 5

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground–level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).* F 6A /56

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
42 (65 66) 14 (67 68) ~~I~~ ~~O~~ N (69 - 71) 1 0 0	0 8 3 (72 - 74) 3 3 (75 76) ~~I~~ ~~O~~ E (77 - 79) 1 0 0

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
C E (15 16) (55)	(56 - 58) (59 - 61) (62 - 65)

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F (15 16) (45)	C G (15 16) (40)	(41 42)	(47 - 51)

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
P. J. Coletta - GM Assembly Division Vice-President and General Manager	P. J. Coletta	11/17/80

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED

CONTINUE ON PAGE 5

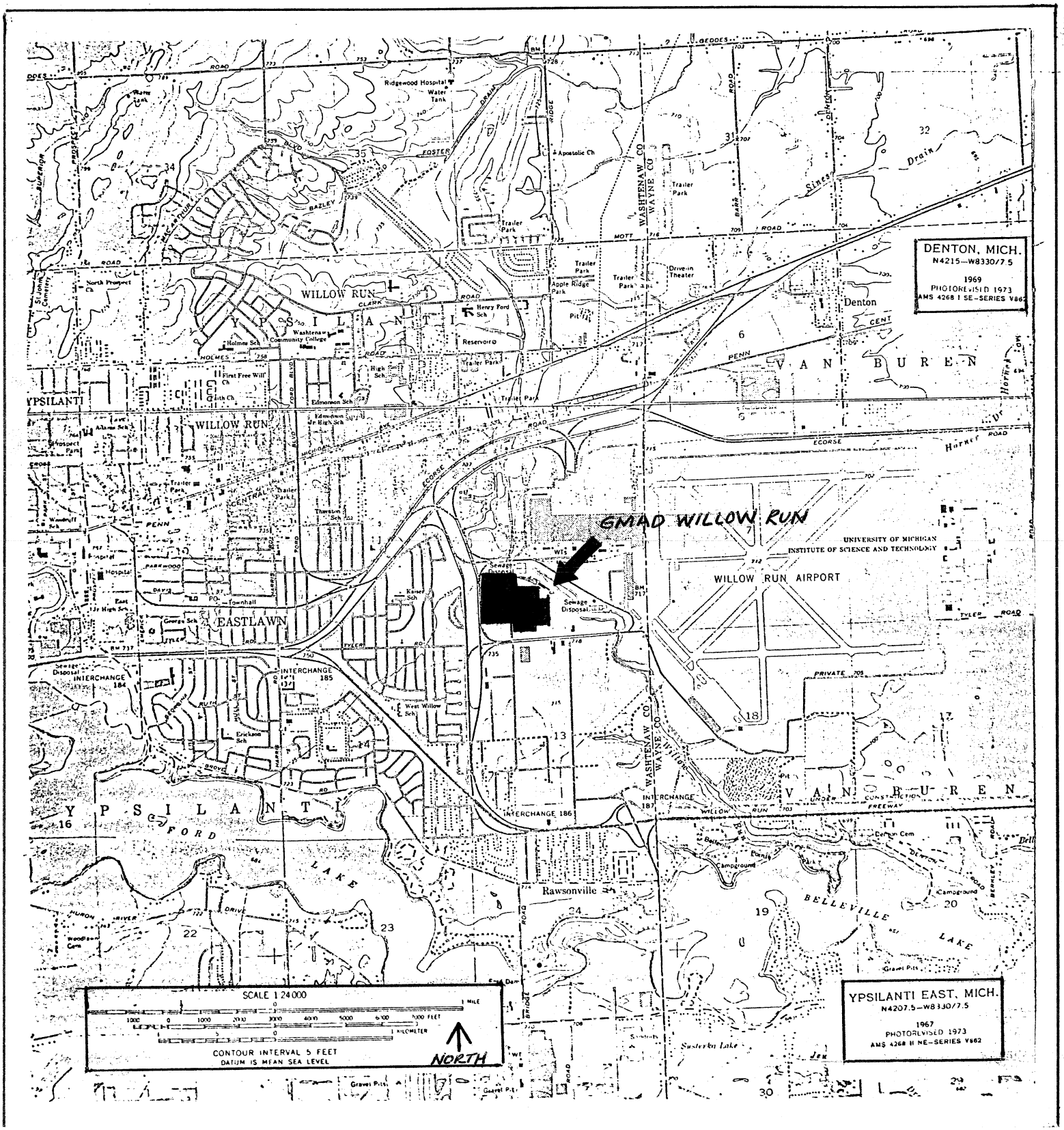
GM Assembly

GM

GM Assembly Division

General Motors Corporation

Willow Run Plant
2625 Tyler Road
Ypsilanti, Michigan 48197



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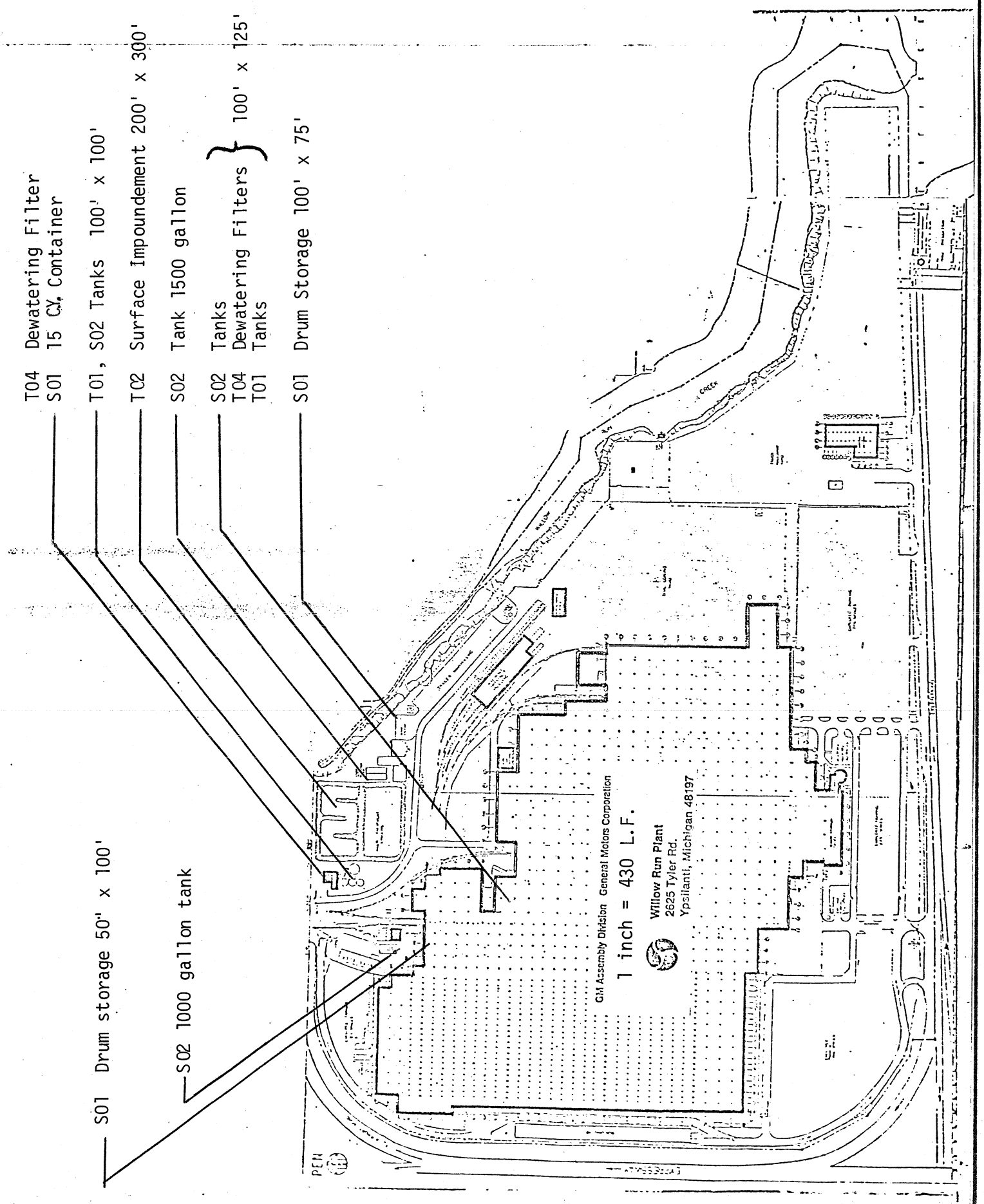
V. FACILITY DRAWING *(see page 4)*



APPENDIX B

SOIL BORING AND TEST PIT LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-1
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CL-CLAYS (surficial fill), compacted, gray, dry to moist		BENTONITE CHIPS 1-7/8"	1DP				3.3
2	SP-SANDS (FILL), fine grained, poorly graded, black, wet	2.50	BOREHOLE NATURAL COLLAPSE	2DP				4.9
4			WELL DETAILS Screened interval: 1.60 to 3.60ft BGS Length: 2ft Diameter: 1in Slot Size: 0.010 Material: PVC	3DP				2.8
6	CL-SILTY CLAYS, trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	6.20						
8	END OF BOREHOLE @ 6.4ft BGS	6.40						
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

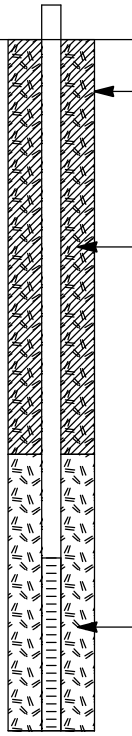
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-10
DATE COMPLETED: April 24, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, dry to moist	
2	- vegetation, rootlets at 0.2ft BGS	
4		
6		
8		
10	- oxidation banding at 10.0ft BGS	
12	SP/SM-SANDS, with silts, fine grained, poorly graded, gray-black-brown, strong odor, laminated black sand seams, wet	12.20
14		
16		
18		
20	CL-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	19.80
22	END OF BOREHOLE @ 20.0ft BGS	20.00
24		
26		
28		
30		
32		
34		
36		
38		

TEMP. MONITORING WELL



WELL DETAILS
Screened interval:
15.00 to 20.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				6.3
2DP				10.1
3DP				41.9
4DP				>2000

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-11
DATE COMPLETED: April 24, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, medium brown, loose, moist		1-7/8" BOREHOLE					
2				1DP				4.9
4								
6			BENTONITE CHIPS					
8				2DP				63.2
10	- some medium sands at 9.0ft BGS							
12	- wet, very strong NAPL-like odor, brown staining at 12.0ft BGS			3DP				>2000
14	- black, fine sands, strong odor at 13.5ft BGS - black, fine sands, strong odor at 14.0ft BGS							
16	- becoming gray at 14.6ft BGS		NATURAL COLLAPSE	4DP				>2000
17	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	17.00						
18	END OF BOREHOLE @ 18.0ft BGS	18.00	WELL DETAILS Screened interval: 13.00 to 18.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC					
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-12
DATE COMPLETED: April 24, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist		CONCRETE; 1-7/8" BOREHOLE	1DP				0.0
2								
4								
6								
8			BENTONITE CHIPS	2DP				0.0
10								
12				3DP				64.1
14								
16	- trace silts, compact at 15.0ft BGS - becoming gray, wet, slight to moderate odor from 16 to 19.5' BGS at 16.0ft BGS		NATURAL COLLAPSE	4DP				392
18	- fine sands, black, moderate odor at 17.0ft BGS							
20	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	19.50 20.00	WELL DETAILS Screened interval: 14.50 to 19.50ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC					
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-13
DATE COMPLETED: April 24, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, medium brown		CONCRETE; 1-7/8" BOREHOLE					
2				1DP				2.0
4								
6			BENTONITE CHIPS					
8				2DP				4.3
10								
12	- oxidation banding at 11.0ft BGS							
14	- wet at 13.0ft BGS - black fine sands, strong odor at 13.9ft BGS			3DP				69.2
16	SP-SANDS, trace silts, laminated, intermixing black sands, moderate odor, brown, wet	14.00						
18			NATURAL COLLAPSE	4DP				--
20	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist	19.30						
22	END OF BOREHOLE @ 20.0ft BGS	20.00						
24			WELL DETAILS Screened interval: 15.00 to 20.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC					
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-14
DATE COMPLETED: April 24, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist		1-7/8" BOREHOLE	1DP				--
2								
4								
6			BENTONITE CHIPS					
8				2DP				39.4
10								
12	SP/SM-SANDS, fine grained, poorly graded, high silt content, grayish black, moist, strong odor - wet at 12.5ft BGS - becoming gray, moderate odor at 14.0ft BGS - becoming black and sheeny, very strong odor at 14.6ft BGS - 0.1ft seam trace NAPL lens at 17.1ft BGS	11.30		3DP				69.0
14								
16								
18			NATURAL COLLAPSE	4DP				72.1
20	CL-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, dry	19.50 20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
15.00 to 20.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-15
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	ASPHALT	0.30	CONCRETE; 1-7/8" BOREHOLE; BENTONITE CHIPS; NATURAL COLLAPSE					
2	SP-SANDS (FILL), fine grained, poorly graded, loose			1DP				--
4								
6								
8				2DP				--
10								
12	- increase in silts at 12.0ft BGS			3DP				27.4
	- wet at 13.0ft BGS							
14	- becoming gray, some intermixing black sands, trace sheens, slight odor at 14.0ft BGS							
16								
	CL-SILTY CLAYS (native), trace fine sands, trace fine subangular gravels, stiff, low plasticity, gray, moist	17.00		4DP				16.2
18								
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
12.00 to 17.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-16
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	ASPHALT	0.30	CONCRETE; 1-7/8" BOREHOLE					
2	SP-SANDS (FILL), with silts, trace fine gravels, fine grained, poorly graded, loose, brown			1DP				1.0
4								
6			BENTONITE CHIPS					
8				2DP				16.2
10								
12	SP/SM-SANDS, fine grained, some silts, some black fine sands, black gray, wet, very sheeny, strong odor	11.00		3DP				124
14								
16			NATURAL COLLAPSE					
18				4DP				77.4
		19.00						
20	CL-SILTY CLAYS (native), trace fine sands, trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
14.00 to 19.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

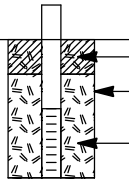
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-2
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SW-SANDS (FILL), some clays, trace vegetation, fine grained, dark brown, saturated		 BENTONITE CHIPS; 1-7/8" BOREHOLE; NATURAL COLLAPSE	1DP				0.0
2	SP/SC-SANDS (FILL), fine grained, poorly graded, loose, black brown, saturated	1.70		2DP				1.3
4	CL-SILTY CLAYS (native), trace fine subangular gravels, low plasticity, gray, moist	4.00		3DP				1.0
6	END OF BOREHOLE @ 5.0ft BGS	5.00	WELL DETAILS Screened interval: 2.00 to 4.00ft BGS Length: 2ft Diameter: 1in Slot Size: 0.010 Material: PVC					
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-3
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP/SM-SANDS (FILL), fine grained, poorly graded, intermixing silts, some peat, brown gray		BENTONITE CHIPS	1DP				4.1
	- wet at 3.0ft BGS		NATURAL COLLAPSE	2DP				3.3
4	- black, fine sands at 4.8ft BGS		1-7/8" BOREHOLE	3DP				4.9
		5.00						
6	CL-SILTY CLAYS, trace fine sands, semi-competent, low to medium plasticity, gray, moist	6.00						
8	END OF BOREHOLE @ 6.0ft BGS							

WELL DETAILS
Screened interval:
3.00 to 5.00ft BGS
Length: 2ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

10 12 14 16 18 20 22 24 26 28 30 32 34 36 38

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-4
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), fine grained, poorly graded, medium brown, loose, moist to wet - some vegetation, rootlets at 0.6ft BGS		BENTONITE CHIPS NATURAL COLLAPSE 1-7/8" BOREHOLE	1DP				16.2
4								
6	SP-SANDS (FILL), fine grained, poorly graded, black, trace sheen, moderate odors, wet	5.00	WELL DETAILS Screened interval: 3.00 to 5.00ft BGS Length: 2ft Diameter: 1in Slot Size: 0.010 Material: PVC					
8	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	7.00		2DP				124
10	END OF BOREHOLE @ 10.0ft BGS	10.00						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

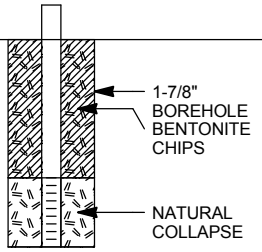
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-5
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist			1DP				--
6	SP-SANDS (FILL), trace silts, fine grained, poorly graded, intermixing black sands, brown gray, wet, slight odor	5.60	WELL DETAILS Screened interval: 4.00 to 6.00ft BGS Length: 2ft Diameter: 1in Slot Size: 0.010 Material: PVC	2DP				--
8	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	8.00						
10	END OF BOREHOLE @ 10.0ft BGS	10.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-6
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist		BENTONITE CHIPS 1-7/8" BOREHOLE	1DP				--
4								
6			NATURAL COLLAPSE					
8	SP-SANDS (FILL), some silts, fine grained, poorly graded - sheeny at 8.0ft BGS	7.30 9.00		2DP				--
10	- black fine sands, moderate odor, sheeny at 8.5ft BGS	10.00	WELL DETAILS Screened interval: 4.00 to 9.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC					
12	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist							
14	END OF BOREHOLE @ 10.0ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-7
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), fine grained, poorly graded, brown, moist		1-7/8" BOREHOLE	1DP				2.0
4			BENTONITE CHIPS					
6								
8				2DP				7.7
10	- wet at 9.0ft BGS - becoming black, slight odor at 10.0ft BGS - sheeny at 11.0ft BGS		NATURAL COLLAPSE					
12								
14	- black, sheeny at 13.0ft BGS	12.70		3DP				126.2
16	CI-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	15.00						
18	END OF BOREHOLE @ 15.0ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
8.00 to 13.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-8
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist		1-7/8" BOREHOLE	1DP				8.1
2								
4			BENTONITE CHIPS					
6								
8				2DP				14.6
10								
12	SP-SANDS (FILL), fine grained, poorly graded, sheeny, compact, black, strong odor, wet	12.20	NATURAL COLLAPSE	3DP				62.3
14	CI-SILTY CLAYS (native), trace fine gravels, stiff, low plasticity, gray, dry to moist	14.50						
15	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
10.00 to 15.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: EOS-9
DATE COMPLETED: April 23, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP. MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), fine grained, poorly graded, medium brown, loose, moist - trace silts at 2.0ft BGS		1-7/8" BOREHOLE	1DP				1.3
4			BENTONITE CHIPS					
6								
8				2DP				246
10	- oxidation banding at 10.0ft BGS							
12	- wet at 12.0ft BGS - laminated sands, black, strong odor, sheeny at 12.5ft BGS		NATURAL COLLAPSE	3DP				>2000
14	- laminated sand, black, strong odor, sheen at 13.6ft BGS	14.80						
16	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, dry to moist	15.00	WELL DETAILS Screened interval: 10.00 to 15.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC					
18	END OF BOREHOLE @ 15.0ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-01D
DATE COMPLETED: May 25, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.37						
0	CONCRETE, with fine subrounded gravels, white, competent	717.87	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, brown, moist - fine grained, light brown at 1.8ft BGS		BENTONITE GROUT 0.75" PVC WELL CASING	1DP				2.0
4			BENTONITE CHIPS	2DP				0.3
6			0.75" PVC WELL SCREEN SAND PACK					
8	- trace clays, orange-brown at 8.3ft BGS			3DP				2.4
10				4DP				666
12	SP-SANDS, trace silts, compact, fine to medium grained, poorly graded, brown-gray, very moist - gray, saturated at 12.0ft BGS	706.87	3-1/2" BOREHOLE	5DP				112
14								
16	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	703.87	NATURAL COLLAPSE AND BENTONITE CHIPS	6DP				29.0
18								
20	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist END OF BOREHOLE @ 20.0ft BGS	699.12 698.37		7DP				10.9
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
713.37 to 712.37ft BGS
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
713.57 to 712.27ft BGS
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-02D
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.39						
0	CONCRETE, with fine subrounded gravels, white, competent	717.89	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, brown, moist		0.75" PVC WELL CASING	1DP				4.1
4	- orange-brown at 3.8ft BGS		BENTONITE GROUT					
	- tan/beige at 5.0ft BGS		BENTONITE CHIPS	2DP				4.3
6			SAND PACK					
			0.75" PVC WELL SCREEN					
8	- brown and orange-brown at 7.5ft BGS			3DP				3.8
10				4DP				39.7
12	- brown-gray, very moist at 11.5ft BGS - saturated at 11.8ft BGS		3-1/2" BOREHOLE					
	CL-SILTY CLAYS, firm, low plasticity, gray, moist	705.14 704.39		5DP				371
14	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated							
16			NATURAL COLLAPSE AND BENTONITE CHIPS	6DP				632
18	- fine to coarse grained at 18.9ft BGS	699.39		7DP				824
20	CL-SILTY CLAYS, firm, low plasticity, gray, moist	698.39						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
713.39 to 712.39ft BGS
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
713.59 to 712.29ft BGS
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-03D
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.31						
0	CONCRETE, with fine subrounded gravels, white, competent	717.81	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium grained, poorly graded, brown, moist	715.81	BENTONITE GROUT; 0.75" PVC WELL CASING	1DP				1340
4	PAINT SLUDGE, trace paper debris, clay to fine gravel size, compact, yellow-green, moist, strong paint-like odor		BENTONITE CHIPS; 0.75" PVC WELL SCREEN; SAND PACK	2DP				+9999
6								
8	SM-SILTY SANDS, compact, fine grained, trace medium grained, poorly graded, brown, moist, slight paint-like odor	710.81	3-1/2" BOREHOLE	3DP				+9999
10				4DP				2495
12	- brown-gray, saturated, slight paint-like odor at 11.5ft BGS - dark gray to black at 12.3ft BGS - gray at 12.5ft BGS			5DP				369
14								
16			NATURAL COLLAPSE AND BENTONITE CHIPS	6DP				125
18	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	700.81		7DP				9.4
20	END OF BOREHOLE @ 20.0ft BGS	698.31						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
713.31 to 712.31ft BGS
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
713.51 to 712.21ft BGS
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-04D
DATE COMPLETED: May 25, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.47						
0	CONCRETE, with fine subrounded gravels, white, competent	717.97	CONCRETE SEAL 3-1/2" BOREHOLE BENTONITE GROUT 0.75" PVC WELL CASING BENTONITE CHIPS 0.75" PVC WELL SCREEN SAND PACK	1DP				18.4
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, orange-brown, moist							
4	- brown at 2.5ft BGS			2DP				8.3
6	- light brown at 3.5ft BGS							
	END OF BOREHOLE @ 6.1ft BGS	712.37						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
713.47 to 712.47ft BGS
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
713.67 to 712.37ft BGS
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-1
DATE COMPLETED: March 7, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHÉ

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	714.98					
0	SC-CLAYEY SANDS, trace fine subangular gravels, trace vegetation (grass and rootlets), firm, poorly graded, fine grained, brown, moist	714.48	CONCRETE SEAL				
2	SP-SANDS, trace fine subangular gravels, loose, poorly graded, fine grained, trace medium grained, dark brown, moist	712.48		1AL		75	
	RED BRICK FRAGMENTS	711.73	8-1/2" BOREHOLE				
4	SP-SANDS, trace silts, trace fine subrounded/subangular gravels, loose, poorly graded, fine grained, trace medium grained, brown, moist		2" PVC WELL CASING				
6	- beige at 3.5ft BGS						
	- brown at 4.0ft BGS		BENTONITE CHIPS	2AL		60	
8	- 4" clay layer at 7.5ft BGS						
10	- beige with orange at 10.5ft BGS		SAND PACK				
12	CH-SANDY CLAYS, trace rootlets, soft, low plasticity, black and dark brown, very moist to damp	702.48	2" PVC WELL SCREEN	3AL		100	
14	- brown at 13.0ft BGS	700.48					
	CH-CLAYS, firm, high plasticity, olive brown, moist						
16							
18			SAND AND NATURAL COLLAPSE	4AL		100	
20	END OF BOREHOLE @ 20.0ft BGS	694.98					
22							
24							
26							
28							
30							
32							
34							

WELL DETAILS
Screened interval:
704.98 to 699.98ft BGS
10.00 to 15.00ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
706.98 to 699.98ft BGS
8.00 to 15.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-2
DATE COMPLETED: March 7, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHÉ

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.14						
0	FILL GRAVEL/CONCRETE DEBRIS	713.81	CONCRETE SEAL					
2	SP-SANDS (FILL), trace silts, trace glass shards, trace vegetation (rootlets), trace fine subangular gravels, loose, poorly graded, fine grained, trace medium grained, dark brown mixed with light brown, moist		8-1/2" BOREHOLE	1AL		90		0.0
4	- 3" layer very low plasticity, clay, beige/dark at 4.0ft BGS		2" PVC WELL CASING					
6	- 4" layer orange intermixed at 6.5ft BGS		BENTONITE CHIPS	2AL		70		
8	- gray rock fragment at 8.5ft BGS							
10			SAND PACK					
12	- gray rock fragments at 12.5ft BGS - wet at 13.0ft BGS		2" PVC WELL SCREEN	3AL				26
14		699.14						
16	WOOD PIECES, petroleum-like odor SC-CLAYEY SANDS, loose/soft, poorly graded, low plasticity, fine grained, with medium grained, dark gray with white grains, wet	699.04		4AL				300
18		695.64						
20	CH-CLAYS, firm, high plasticity, olive brown, moist END OF BOREHOLE @ 20.0ft BGS	694.14	SAND AND NATURAL COLLAPSE					
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
700.64 to 695.64ft BGS
13.50 to 18.50ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
702.64 to 695.64ft BGS
11.50 to 18.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-6
DATE COMPLETED: May 24, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.70						
0	CL-SILTY CLAYS, firm, low plasticity, brown and gray, moist		CONCRETE SEAL BENTONITE CHIPS 2" PVC WELL CASING	1HA				2.6
2				2HA				1.7
		696.95		3HA				593
4	PAINT SLUDGE DEBRIS, with sands and silts, cork-like texture, brick red, moist, rotten, paint-like odor	696.45	3-1/2" BOREHOLE	4HA				328
	SC/CL-SANDS & CLAYS, with silts, soft/loose, fine sands, low plasticity, yellow-green and gray, saturated, slight petroleum-like odor	694.45	SAND PACK	5HA				50.1
6		693.70	2" PVC WELL SCREEN	6HA				4.8
8	CL-SILTY CLAYS, trace fine sands, firm to stiff, low plasticity, brown and gray mottled, moist							
	END OF BOREHOLE @ 6.0ft BGS							
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
697.70 to 693.70ft BGS
2.00 to 6.00ft BGS
Length: 4ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
698.70 to 693.70ft BGS
1.00 to 6.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (3HA)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-7
DATE COMPLETED: June 7, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	681.59						
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, dark brown, moist		CONCRETE SEAL	1DP				10.5
	- with clays at 3.3ft BGS		BENTONITE CHIPS					
4	- no clays, brown and orange brown at 3.8ft BGS	677.09	2" PVC WELL CASING	2DP				13.8
6	CL-SANDY CLAYS, soft to firm, low plasticity, medium gray, moist, fine sands	675.59	8-1/4" BOREHOLE	3DP				13.6
	SC/CL-SANDS & CLAYS, trace silts, compact/firm, low plasticity, brown-gray, very moist to saturated	674.84	SAND PACK					
8	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, brown-gray, saturated	674.49	2" PVC WELL SCREEN	4DP				14.1
10	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	671.59	BENTONITE CHIPS AND NATURAL COLLAPSE					
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
678.59 to 673.59ft BGS
3.00 to 8.00ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
679.59 to 673.59ft BGS
2.00 to 8.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-8
DATE COMPLETED: February 27, 2006
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
0	SP-SANDS, trace silts, brown, moist to wet		BENTONITE; 3" BOREHOLE; 2" PVC WELL CASING; 2" PVC WELL SCREEN; SAND PACK				
2	CH-CLAYS, high plasticity, firm, gray	2.50					
4							
6							
8	END OF BOREHOLE @ 8.0ft BGS	8.00					
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							

WELL DETAILS
Screened interval:
1.50 to 6.50ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
1.00 to 8.00ft BGS
Material: #5 SANDS

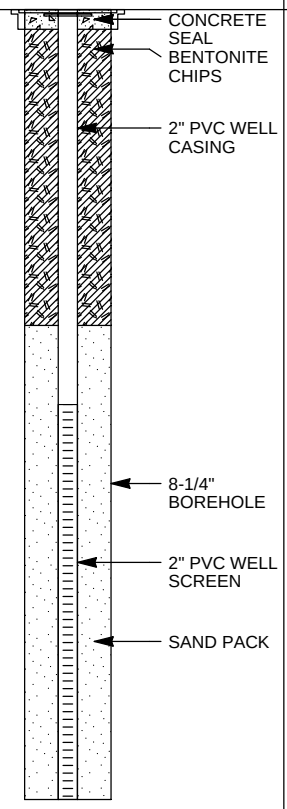
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: IW-26R
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMPORARY MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE "N" VALUE
	GROUND SURFACE TOP OF CASING TOP OF RISER	716.49 716.46 716.12					



WELL DETAILS
Screened interval:
706.49 to 696.49ft BGS
10.00 to 20.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.49 to 696.49ft BGS
8.00 to 20.00ft BGS
Material: #5 SILICA

2
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32
34

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 1/6/04

Date Start/Finish: 09/16/96 / 09/16/96
Drilling Company: Superior Environmental
Driller's Name: G. Hill
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 18 ft.

Geologist: M. Mueller

Well No. MW-12

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										GROUND SURFACE	
		1					17.8			Sand, brownish yellow (10YR 6/6), fine grained, poorly sorted, 10% silt	Well cap; Cement pad
		2					8				Neat cement
5		3					17.8				Bentonite seal
		4					23.8			Sand yellowish brown (10YR 5/6), fine grained, well sorted, 5% silt	2-inch Schedule 40 PVC riser
		5					34				
10										Sand, dark yellowish brown (10YR 4/6), fine grained, well sorted, 5% silt	6/20 silica sand
										Silt, dark grey (5Y 4/1), some clay (5%)	
15											0.010" slot stainless steel well screen
										Silty clay, light olive grey (5Y 6/2), firm, semi-cohesive	
20											

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
09/17/96		13.14 ▼

Project: 480.43
Script: nbblwell
Date: 11/20/96

Date Start/Finish: 09/16/96 / 09/16/96
Drilling Company: Superior Environmental
Driller's Name: G. Hill
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 18 ft.

Geologist: M. Mueller

Well No. MW-13

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	1					0.4			Sand, brownish yellow (10YR 6/6), fine grained, poorly sorted, 10% silt	Well cap; Cement pad
	2					0.4				
5	3					0.4				Neat cement; Bentonite seal
	4					1			Sand, dark yellowish brown (10YR 4/6), fine grained, well sorted, 5% silt	2-inch Schedule 40 PVC riser
	5					0.6				
10										▼
									Clay, dark grey (N 2/0), soft, cohesive	6/20 silica sand
15										0.010" slot stainless steel well screen
20										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
09/17/96		11.09 ▼

Date Start/Finish: 09/16/96 / 09/16/96
Drilling Company: Superior Environmental
Driller's Name: G. Hill
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 18 ft.

Geologist: M. Mueller

Well No. MW-14

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	1					0.2			Sand, brownish yellow (10YR 6/6), fine grained, poorly sorted, 10% silt	Well cap; Cement pad
	2					0				
5	3					0.2				Neat cement; Bentonite seal
	4					0.4				2-inch Schedule 40 PVC riser
	5					0.6				
10									Silt, dark grey (5Y 4/1), some clay (5%)	6/20 silica sand
15										0.010" slot stainless steel well screen
20										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
09/17/96		12.48 ▼

Project: 480.43
Script: nbblwell
Date: 11/20/96

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-63/MW18-01
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	708.00						
0	MH-SANDY SILTS, trace clay (FILL), loose, fine grained, poorly graded, gray, moist	707.30	BENTONITE CHIPS	1MC				
2	CL/ML-CLAYEY SILTS, trace sands (FILL), firm, low plasticity, gray, moist	706.50						
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist		2" PVC WELL CASING			70		0.0
4								
	- wet at 5.5ft BGS		8-1/4" BOREHOLE					
6								
	- black, odor present at 7.5ft BGS			2MC				
8	- gray at 8.0ft BGS		2" PVC WELL SCREEN					
	- strong odor, brown liquid at 9.7ft BGS	698.20						
10	CL-SILTY CLAY, (natural), firm, low plasticity, gray, moist	698.00	SAND PACK			100		1100
	END OF BOREHOLE @ 10.0ft BGS							
12	NOTE: BORING COMPLETED ON NOVEMBER 24, 2003, MONITORING WELL COMPLETED ON MAY 17, 2004							
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.80 to 697.80ft BGS
5.20 to 10.20ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
704.50 to 697.50ft BGS
3.50 to 10.50ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-64/MW18-02
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	707.28						
0	CL-SILTY CLAY, with rootlets (topsoil), (FILL), firm, low plasticity, dark brown, moist	707.08		1MC				
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist		BENTONITE CHIPS	2MC		80		0.0
4			2" PVC WELL CASING	3MC		80		0.0
6	- wet at 6.0ft BGS		8-1/4" BOREHOLE	4MC		80		5.4
8	- dark gray, staining, odor at 7.0ft BGS		2" PVC WELL SCREEN	5MC		80		2000+
10	- visible brown liquid, strong odor (product) at 9.4ft BGS	697.48	SAND PACK			60		2000+
12	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist	697.28						
14	END OF BOREHOLE @ 10.0ft BGS							
16	NOTE: BORING COMPLETED ON NOVEMBER 24, 2003, MONITORING WELL COMPLETED ON MAY 17, 2004							
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.18 to 697.18ft BGS
5.10 to 10.10ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
703.78 to 696.78ft BGS
3.50 to 10.50ft BGS
Material: SAND

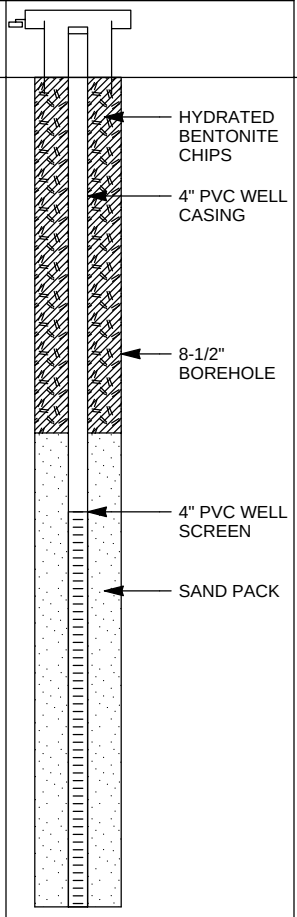
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW18-03
DATE COMPLETED: September 1, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	715.08					
0	SW-SANDS (FILL), fine to medium sands, well graded, sense, light brown, moist						
2	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist	713.38					
10	SM-SILTY SANDS, trace fine and medium sands, semi-competent, trace clays, trace plasticity, brown, moist	705.08 704.68					
12	SP-SANDS, fine grained, poorly graded - wet at 11.0ft BGS - becoming blackish-gray, strong odor at 11.5ft BGS						
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.08					
22	END OF BOREHOLE @ 21.0ft BGS	694.08					



WELL DETAILS
Screened interval:
704.08 to 694.08ft BGS
11.00 to 21.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
706.08 to 694.08ft BGS
9.00 to 21.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

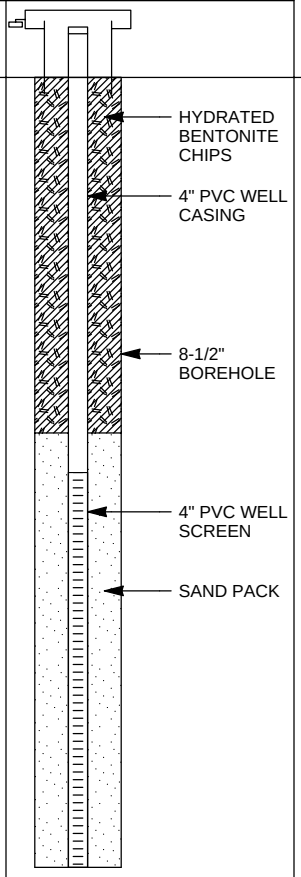
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW18-04
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	714.36					
2	SW-SANDS (FILL), fine to medium sands, trace rootlets, well graded medium brown, moist						
		711.76					
4	SP-SANDS (FILL), fine grained, poorly graded, compact, light brown, moist						
6	- orangish brown at 6.2ft BGS						
8							
10	- very moist at 10.0ft BGS - wet at 11.0ft BGS						
		702.66					
12	SM-SILTY SANDS, some fine sands, poorly graded, trace clays, compact, brown, wet	701.86					
14	SW-SANDS, fine to coarse grained, well graded, compact, gray, wet - sheeny, black foundry sand at 13.0ft BGS						
16	- black foundry sand, strong odor at 14.0ft BGS - brown oily liquid (product) at 15.0ft BGS						
		697.36					
18	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray						
20		694.36					
	END OF BOREHOLE @ 20.0ft BGS						
22							
24							
26							
28							
30							
32							
34							



WELL DETAILS
Screened interval:
704.36 to 694.36ft BGS
10.00 to 20.00ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0.010
Material: PVC
Sand Pack:
705.36 to 694.36ft BGS
9.00 to 20.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW18-05
DATE COMPLETED: June 7, 2005
DRILLING METHOD: DIRECT PUSH/8-1/4" HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.91						
2	SW-SANDS (FILL), trace silts, trace vegetation (rootlets), loose, well graded, fine and medium grained, with coarse grained, dark brown, moist		BENTONITE CHIPS	1AL		90		
		710.91						
4	SP-SANDS, trace to with silts, loose to compact, poorly graded, light brown, moist							
6	- orange hue, slightly plastic at 5.5ft BGS		2" PVC WELL CASING					
8				2AL		80		90.8
	- very moist at 9.0ft BGS							131
10	SM-SILTY SANDS, compact, poorly graded, fine grained, brown, wet	703.91						>2000
12				3AL		80		>2000
		700.91						
14	SP-SANDS, trace silts, loose to compact, poorly graded, fine with medium grained, dark gray, wet (oily sheen for top 2-inches)		8-1/4" BOREHOLE					>2000
	- black at 13.5ft BGS							
16	- dark gray at 14.5ft BGS							>2000
18			2" PVC WELL SCREEN	4AL		100		>2000
	- brown at 19.0ft BGS		SAND PACK					>2000
20	CL-CLAYS, stiff, low plasticity, dark gray/brown, moist, petroleum-like odor and oily-like substance between liner and clay	693.91						
22				5AL		100		
24								
	END OF BOREHOLE @ 25.0ft BGS	688.91						
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
698.91 to 688.91ft BGS
15.00 to 25.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
700.91 to 688.91ft BGS
13.00 to 25.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-200/MW18-06
DATE COMPLETED: June 7, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.27						
0	SM-SILTY SANDS, trace fine gravels, loose, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist		CONCRETE SEAL	1DP				17.9
2	- orange-brown at 1.3ft BGS		BENTONITE CHIPS					
4	- compact, light brown at 4.0ft BGS		2" PVC WELL CASING	2DP				20.1
6	- trace clays, brown and orange-brown, slight increase in silt and moisture content at 6.0ft BGS		8-1/4" BOREHOLE					
8	- no clays, decrease in silt and moisture content at 8.3ft BGS		SAND PACK	3DP				418
10	- light brown at 9.0ft BGS - very moist at 10.0ft BGS - brown-gray, saturated, moderate petroleum-like odor at 10.5ft BGS		2" PVC WELL SCREEN	4DP				1589
12	- dark amber NAPL in soils at 12.0ft BGS - no NAPL at 12.3ft BGS - dark gray at 13.0ft BGS			5DP				3269
14	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	699.47						
16				6DP				159
18			NATURAL COLLAPSE & BENTONITE CHIPS	7DP				17.1
20	END OF BOREHOLE @ 20.0ft BGS	693.27						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
707.27 to 697.27ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
709.27 to 697.27ft BGS
4.00 to 16.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW18-07
DATE COMPLETED: February 27, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
0	SP-SANDS, trace silts and vegetation, loose, fine to medium grained, poorly graded, brown, moist		BENTONITE	1AL		60	
4	- orange hue at 5.0ft BGS		2" PVC WELL CASING				
7	CH-SILTY CLAYS, firm, high plasticity, orange and brown, moist	7.00	3" BOREHOLE	2AL		70	
9	SM-SILTY SANDS, compact, fine grained, poorly graded, brownish gray, wet	9.00	2" PVC WELL SCREEN				
12.5	SP-SANDS, trace silts, compact, poorly graded, brown, wet	12.50	SAND PACK	3AL		75	
17	SC-CLAYEY SANDS, trace silts, compact, poorly graded, brownish gray, wet	17.00		4AL		80	
19	CH-CLAYS, firm to stiff, high plasticity, brownish gray, wet	19.00					
20	END OF BOREHOLE @ 20.0ft BGS	20.00					

WELL DETAILS
Screened interval:
9.50 to 19.50ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 20.00ft BGS
Material: #5 SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

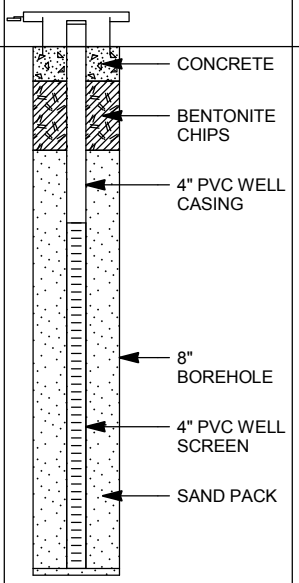
HOLE DESIGNATION: SB18-273/MW18-09
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268435.59
EASTING: 13344560.09

TOP OF CASING 713.02
GROUND SURFACE 710.58

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SP-SANDS (FILL), fine grained, poorly graded, compact, brown, moist	
4	- wet at 3.5ft BGS	
10	SP/SM-SANDS, fine grained, high silt content, poorly graded, compact, gray, wet	700.58
12	- some sheen, black, fine sands at 11.0ft BGS	
13	- 1.1' of NAPL staining observed, brown liquid, strong odor at 13.0ft BGS	
14		696.48
15	CL-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, moist	695.58
15	END OF BOREHOLE @ 15.0ft BGS	

MONITORING WELL



WELL DETAILS
Screened interval:
705.48 to 695.48ft BGS
5.10 to 15.10ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0010
Material: PVC
Sand Pack:
707.58 to 695.28ft BGS
3.00 to 15.30ft BGS
Material: SANDS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				NA
2DP				NA
3DP				NA

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-01
DATE COMPLETED: November 20, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE 716.76 TOP OF CASING 716.70 TOP OF RISER 716.37							
0	ASPHALT	716.46	CONCRETE SEAL					
	GM-SILTY GRAVELS, (FILL), compact, fine grained angular, poorly graded, gray, moist	715.26						
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, brown, moist	714.26	BENTONITE CHIPS	1MC 0-2' -226		85		0.0
4	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, brown, moist		2" PVC WELL CASING			85		0.0
6								
8	- medium grained, trace fine grained rounded gravels at 7.0ft BGS		8-1/4" BOREHOLE	2MC		90		0.0
10			2" PVC WELL SCREEN			90		0.0
12	- 1.5" lens orange/oxidated at 12.3ft BGS		SAND PACK	3MC 12.5-14.5 -227		70		0.0
14	- very moist to wet at 14.0ft BGS - wet at 14.5ft BGS					70		0.0
16								
18	CI-SILTY CLAY, with occasional 1mm thick horizontal silt lenses (natural), firm, medium plasticity, gray, moist	699.56		4MC				0.0
20	END OF BOREHOLE @ 20.0ft BGS	696.76						0.0
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.76 to 698.76ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.76 to 698.76ft BGS
6.00 to 18.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1MC, 2MC, 3MC, 4MC)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-02
DATE COMPLETED: November 20, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING 716.47 GROUND SURFACE 716.47 TOP OF RISER 716.15							
0	ASPHALT	716.17	CONCRETE SEAL					
	GM-SILTY GRAVELS, trace sands (FILL), compact, fine grained angular, poorly graded, gray, moist							
2		714.57		1MC 0-2' -224		90		0.0
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist		BENTONITE CHIPS					
4								
			2" PVC WELL CASING			90		0.0
6								
	- 1" gray at 7.0ft BGS	709.37	8-1/4" BOREHOLE					
	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, orange-brown, moist			2MC		80		0.0
8	- medium grained, trace fine grained rounded gravels at 8.2ft BGS							
10						80		0.0
	- with gravels at 11.0ft BGS		2" PVC WELL SCREEN					
12				3MC 12-14' -225		90		0.0
			SAND PACK					
14	- trace gravels, wet at 14.0ft BGS							
						90		0.0
16	- gravels not present, fine grained at 16.0ft BGS							
				4MC		100		0.0
18		698.27						
	CI-SILTY CLAY, trace fine grained gravels, stiff, medium plasticity, gray, moist, homogeneous							
20	- 1" lens wet sands at 19.2ft BGS	696.47				100		0.0
	- 1" lens wet sands at 19.9ft BGS							
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
707.47 to 697.47ft BGS
9.00 to 19.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
709.97 to 697.47ft BGS
6.50 to 19.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-03
DATE COMPLETED: November 20, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE TOP OF CASING TOP OF RISER	714.97 714.95 714.44						
0	ASPHALT	714.67	CONCRETE SEAL BENTONITE CHIPS					
2	GM-SILTY GRAVELS, trace sands (FILL), compact, fine grained angular, poorly graded, light brown, moist	713.67		1MC 0-2' -221 -222		80		0.0
4	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, brown, moist	711.47	2" PVC WELL CASING			80		0.0
6	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, brown, moist	709.47						
8	SM-SILTY SANDS, (natural), compact, fine grained, poorly graded, orange-brown, moist	707.97	8-1/4" BOREHOLE	2MC		80		0.0
10	SP-SANDS, trace silts, trace fine grained rounded gravels (natural), compact, fine grained, poorly graded ,light brown, moist			11-13' -223		80		0.0
12			2" PVC WELL SCREEN	3MC		70		0.0
14			SAND PACK					
16						70		0.0
18	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist - occasional horizontal sand lenses, 1mm thick at 17.0ft BGS - trace coarse grained gravels at 19.4ft BGS	698.77		4MC		100		0.0
20	END OF BOREHOLE @ 20.0ft BGS	694.97				100		0.0
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
707.97 to 697.97ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
709.97 to 697.97ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

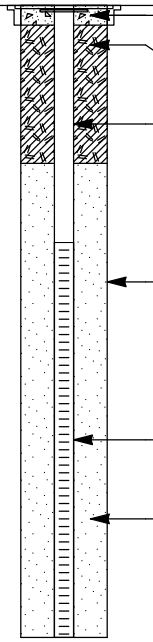
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-04
DATE COMPLETED: November 20, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	TOP OF CASING	712.10
	GROUND SURFACE	712.08
	TOP OF RISER	711.56
0	ASPHALT	711.78
	GM-SILTY GRAVELS, (FILL), compact, fine grained angular, poorly graded, light brown, moist	710.78
2	SP-SANDS, trace silts (FILL), loose, fine grained, poorly graded, brown, moist	
4	- medium grained at 4.0ft BGS	
	- fine grained at 5.5ft BGS	
6		
	CL-SILTY CLAY, trace sands (FILL), firm, low plasticity, brown, moist	705.48
8	SP-SANDS, trace silts (natural), compact, medium grained, poorly graded, brown, moist	704.38
	- fine grained, wet at 9.0ft BGS	
10		
	SM-SILTY SANDS, trace clay (natural), compact, fine grained, poorly graded, brown, wet	701.58
12		700.38
	ML-CLAYEY SILTS, compact, fine grained, poorly graded, brown, moist	699.88
	SM-SILTY SANDS, (natural), compact, fine grained, poorly graded, brown, wet	699.08
14	SP-SANDS, trace silts (natural), compact, medium grained, poorly graded, brown with orange oxidated lenses, wet	696.88
16	- fine grained, gray at 14.0ft BGS	
	CL-SILTY CLAY, trace fine grained sands (natural), stiff, low plasticity, brown, moist	
18	- trace fine grained gravels, trace sands at 17.4ft BGS	
	- trace coarse grained gravels, sands not present at 19.1ft BGS	692.08
20	END OF BOREHOLE @ 20.0ft BGS	
22		
24		
26		
28		
30		
32		
34		



WELL DETAILS
Screened interval:
706.08 to 696.08ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.08 to 696.08ft BGS
4.00 to 16.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC 0-2' -219		60		0.0
		60		0.0
2MC 7-9' -220		70		0.0
		70		0.0
3MC		70		0.0
		70		0.0
4MC		80		0.0
		80		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-05
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	712.13						
0	ML-SILTS WITH CLAY, trace sands (FILL), compact, fine grained, poorly graded, gray, moist		2" BOREHOLE; BENTONITE CHIPS	1MC (0-2' -199)		80		0.0
4		707.63				80		0.0
6	MH-SILTS WITH SANDS, trace clay (FILL), compact, fine grained, poorly graded, gray, moist			2MC		80		0.0
10						80		0.0
12	- sandy silts, brown at 12.3ft BGS			3MC		90		0.0
14		698.83				90		0.0
16	CL-SILTY CLAY, trace fine grained sands (natural), firm, low plasticity, gray, moist - 1/2" lens fine sands at 14.2ft BGS - 1/2" lens fine sands at 14.6ft BGS - trace fine grained rounded gravels, stiff at 17.0ft BGS			4MC		50		0.0
20						50		0.0
22				5MC		100		0.0
24		687.13						
26	END OF BOREHOLE @ 25.0ft BGS							
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-06
DATE COMPLETED: November 18, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING 714.70 GROUND SURFACE 714.69 TOP OF RISER 714.24							
0	ASPHALT	714.39	CONCRETE SEAL					
	GW-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained angular, well graded, light gray, damp	713.69						
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, dark brown, moist	712.39	BENTONITE CHIPS	1MC 0-2' -231 -232		90		0.0
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, damp - with silts at 4.4ft BGS		2" PVC WELL CASING			90		0.0
6								
8	- trace fine grained rounded gravels, moist at 7.0ft BGS - trace silts, gravel not present at 8.0ft BGS			2MC		100		0.0
10	- medium grained, trace fine grained rounded gravels at 9.5ft BGS		8-1/4" BOREHOLE	10-12' -233		100		0.0
12	- wet at 12.0ft BGS		2" PVC WELL SCREEN	3MC		100		0.0
14	- fine grained, gravel not present, gray at 13.4ft BGS		SAND PACK			100		0.0
16	CI-SILTY CLAY, trace fine grained rounded gravels (natural), stiff, medium plasticity, gray, moist	698.69		4MC		100		0.0
18								
20	END OF BOREHOLE @ 20.0ft BGS	694.69				100		0.0
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
706.69 to 696.69ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
707.69 to 696.69ft BGS
7.00 to 18.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

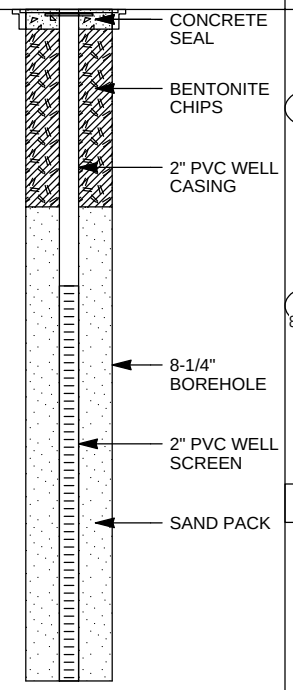
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-07
DATE COMPLETED: November 18, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	TOP OF CASING	716.08
	GROUND SURFACE	716.05
	TOP OF RISER	715.72
0	ASPHALT	715.65
	GW-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained, angular, poorly graded, light gray, dry	715.15
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, dark brown, moist	713.05
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, yellowish brown, moist	
6	- 1" lens silts at 6.2ft BGS	
	- light brown at 7.2ft BGS	
8	- 2" lens fine grained gravels at 8.4ft BGS	
10	- wet at 10.5ft BGS	
	- 2" lens silty sands at 10.8ft BGS	
12		
14		
16		
	CI-SILTY CLAY, trace fine grained sands, trace fine grained rounded gravels, stiff, medium plasticity, gray, moist, homogeneous	699.35
18	END OF BOREHOLE @ 17.0ft BGS	699.05
20		
22		
24		
26		
28		
30		
32		
34		

MONITORING WELL



WELL DETAILS
Screened interval:
709.05 to 699.05ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
711.05 to 699.05ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC 0-2' -234		70		0.0
		70		0.0
2MC 8.5-10.5 -235		100		0.0
		100		0.0
		90		0.0
3MC		90		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

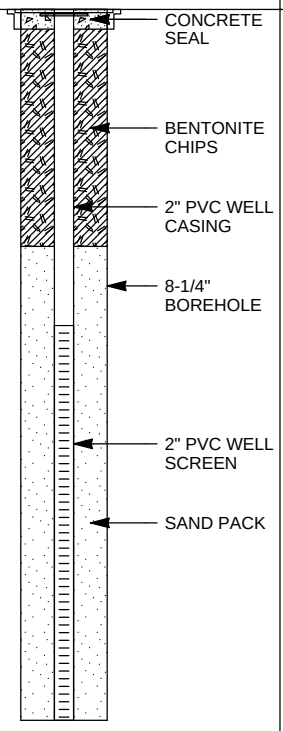
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-08
DATE COMPLETED: November 18, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	TOP OF CASING	716.05
	GROUND SURFACE	716.05
	TOP OF RISER	715.86
0	CONCRETE	715.30
2	GM-SILTY SAND-GRAVEL, (FILL), compact, fine grained, angular poorly graded, light gray, dry	714.85
	SP-SANDS, trace silts, loose, fine grained, poorly graded, medium brown, damp	
4		
	- compact at 5.0ft BGS	
6	- light brown at 5.5ft BGS	
8		
10	- 1.5" lens sandy silts at 9.8ft BGS	
		704.85
12	MH-SANDY SILTS, trace clay (FILL), compact, fine grained, poorly graded, brown, wet, rapid dilatancy	703.95
	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, brown, wet	
14	- gray, faint petroleum-type odor at 13.1ft BGS	
16		
	- 1" lens black staining, odor at 17.2ft BGS	698.75
18	CI-SILTY CLAY, trace fine grained gravels (natural), stiff, medium plasticity, gray, moist, homogeneous	
20	END OF BOREHOLE @ 20.0ft BGS	696.05
22		
24		
26		
28		
30		
32		
34		



WELL DETAILS
Screened interval:
708.05 to 698.05ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.05 to 698.05ft BGS
6.00 to 18.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC		50		0.0
		50		0.0
2MC		80		0.0
		80		0.0
3MC		90		0.0
		90		0.0
4MC		90		0.0
		90		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

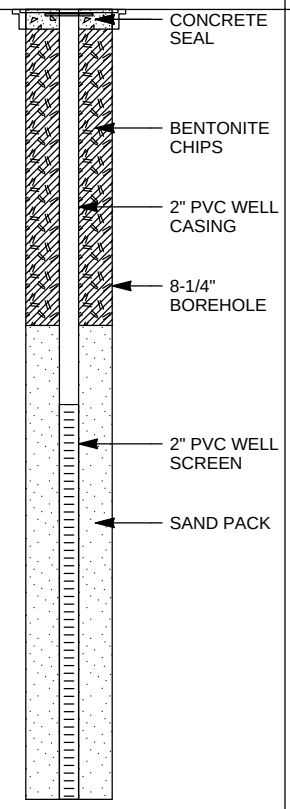
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-09
DATE COMPLETED: November 20, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE TOP OF CASING TOP OF RISER	718.44 718.43 718.24
0	CONCRETE	717.84
	GM-SILTY SAND-GRAVEL, (FILL), compact, fine grained, poorly graded, gray, moist	716.84
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist	
4	wood debris	714.64
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, damp	713.84
6		
		711.44
	ML-CLAYEY SILTS, (FILL), compact, fine grained, poorly graded, gray, moist	710.94
8	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, orange-brown, moist	709.94
10	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, orange-brown, moist - medium grained, trace fine grained rounded gravels at 9.0ft BGS	
12	- 1" lens orange oxidated at 12.1ft BGS - gray, very moist to wet at 12.4ft BGS	
	- 3" lens sandy clay at 13.0ft BGS	
14	- 3" lens sandy clay at 13.5ft BGS - wet at 14.0ft BGS	
16		
	MH-SANDY SILTS, trace clay (natural), compact, fine grained, poorly graded, gray, wet, rapid dilatancy	701.44
18	- 2" lens wet sands at 18.2ft BGS	699.34
20	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist, occasional 1mm thick horizontal sand lenses	698.44
	END OF BOREHOLE @ 20.0ft BGS	
22		
24		
26		
28		
30		
32		
34		



WELL DETAILS
Screened interval:
708.44 to 698.44ft BGS
10.00 to 20.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.44 to 698.44ft BGS
8.00 to 20.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC		60		0.0
		60		0.0
2MC		60		0.0
		60		0.0
3MC		60		0.0
		60		0.0
4MC		100		0.0
		100		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-10
DATE COMPLETED: November 19, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE 718.45 TOP OF CASING 718.44 TOP OF RISER 718.13							
0	CONCRETE	717.75	CONCRETE SEAL					
2	GM-SILTY GRAVELS, (FILL), compact, coarse grained angular, poorly graded, light gray, dry	716.75		1MC		50		0.0
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist to very moist - 2" lens silty sands at 3.0ft BGS - 3" lens concrete rubble at 3.2ft BGS		BENTONITE CHIPS					
6	- 2" lens concrete rubble at 3.9ft BGS - trace fine grained rounded gravels at 6.6ft BGS		2" PVC WELL CASING			50		0.0
8	- 1" wood debris at 7.9ft BGS - light brown, moist, faint petroleum type odor at 8.4ft BGS		8-1/4" BOREHOLE	2MC 7.4-9.4 -218		50		0.0
10						50		284
12	- 3" lens clayey sands at 12.4ft BGS - gray, wet, sheen, petroleum type odor at 12.7ft BGS		2" PVC WELL SCREEN	3MC		50		487
14	- black, stronger odor, blue sheen at 14.4ft BGS		SAND PACK			50		593
16	- light gray, sheen not present at 15.5ft BGS							
18	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist, homogeneous - 1/8" lens silts at 19.0ft BGS	700.85		4MC		80		29.5
20	- trace 1mm thick fine grained horizontal sands lens at 19.3ft BGS	698.45				80		13.2
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
710.45 to 700.45ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.45 to 700.45ft BGS
6.00 to 18.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2MC)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

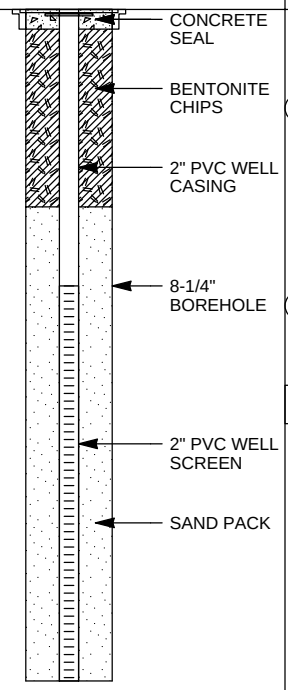
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-11
DATE COMPLETED: November 18, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	TOP OF CASING	716.81
	GROUND SURFACE	716.80
	TOP OF RISER	716.63
0	ASPHALT	716.40
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, poorly graded, light brown, dry	715.80
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist	
4	- 1/2" piece slag at 4.1ft BGS	
6		
8	- 3" lens clayey sands, very moist at 8.0ft BGS	
	- medium grained, grayish brown at 8.5ft BGS	
10	- wet at 9.5ft BGS	
	- fine grained at 10.0ft BGS	
12		
	- dark gray at 13.0ft BGS	
14		
16	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist, homogeneous	700.70
	END OF BOREHOLE @ 17.0ft BGS	699.80
18		
20		
22		
24		
26		
28		
30		
32		
34		

MONITORING WELL



WELL DETAILS
Screened interval:
709.80 to 699.80ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
711.80 to 699.80ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC 0-2' -229		80		0.0
		80		0.0
2MC 7.5-9.5' -230		90		0.0
		90		0.0
3MC		100		0.0
4MC				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-12
DATE COMPLETED: November 19, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING 715.67 GROUND SURFACE 715.58 TOP OF RISER 715.29							
0	ASPHALT	715.18	CONCRETE SEAL BENTONITE CHIPS					
	GP-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained angular, poorly graded, light brown, moist	714.18						
2	SP-SANDS WITH SILTS, (FILL), trace fine grained gravels, trace glass, loose, fine grained, poorly graded, brown, moist		2" PVC WELL CASING	1MC 0-2' -215		75		0.0
4						75		0.0
6			8-1/4" BOREHOLE					
8	- 1" lens trace ash/cinders at 7.5ft BGS			2MC		40		0.0
10	- concrete at 10.0ft BGS			11.5-13.5 -216		40		0.0
	- 1.5" wood at 11.5ft BGS		2" PVC WELL SCREEN					
12	- light brown, wet at 12.5ft BGS - black at 13.0ft BGS		SAND PACK	3MC		55		0.0
14	- faint odor at 13.8ft BGS - slight sheen at 14.8ft BGS					55		2.1
16	- gray at 15.5ft BGS - stronger odor at 16.0ft BGS							
	CL-SILTY CLAY, (natural), firm, medium plasticity, gray, moist, homogeneous	698.88		4MC		90		7.4
18								
20	END OF BOREHOLE @ 20.0ft BGS	695.58				90		1.8
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.58 to 698.58ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.58 to 698.58ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

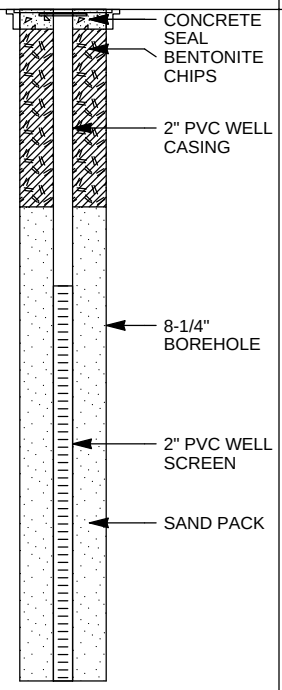
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-13
DATE COMPLETED: November 19, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	709.96
	TOP OF CASING	709.92
	TOP OF RISER	709.41
0	CL-CLAY AND SILTS, trace fine grained gravels (FILL), firm, low plasticity, gray, moist	
8	- 1" lens wet at 8.0ft BGS	
10	- 2" lens wet coarse grained gravels at 10.8ft BGS	
12	- sandy clay, trace silts at 11.0ft BGS	697.96
	GM-SILTY GRAVELS, trace sands, trace clay (FILL), compact, coarse grained angular, poorly graded, gray, wet	
14	- stained black, faint odor at 14.1ft BGS	
	- slight sheen at 15.5ft BGS	
16	PT-PEAT, brown, fibrous, moist	692.96
18	OL-ORGANIC CLAYEY SILTS, trace sands, soft, low plasticity, brown, moist	692.06 / 691.66
	SP-SANDS, trace silts, compact, fine grained, poorly graded, brown, very moist	691.16
20	OL-ORGANIC SILTY CLAY, trace marl, trace peat fibers, firm, low plasticity, gray, moist	689.96
22	END OF BOREHOLE @ 20.0ft BGS	

MONITORING WELL



WELL DETAILS
Screened interval:
702.96 to 692.96ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
704.96 to 692.96ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC		95		0.0
		95		0.0
2MC		95		0.0
		95		0.0
3MC		60		0.0
		60		3.4
4MC		60		3.8
		60		4.2

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-14
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	714.79 714.70 714.62						
0	ML-SILTS, with clay (FILL), loose, fine grained, poorly graded, gray, moist	714.20	CONCRETE SEAL BENTONITE CHIPS					
2	SM-SILTY SANDS, trace fine grained rounded gravels (FILL), loose, fine grained, poorly graded, brown, moist		2" PVC WELL CASING	1MC (0-2' -209)		30		0.0
4	- with concrete, slag, glass, wood, fine metal shavings at 4.5ft BGS		8-1/4" BOREHOLE			30		0.0
6								
8			2" PVC WELL SCREEN	2MC		80		0.0
10			SAND PACK	(11-13' -210)		80		0.0
12	- wet at 13.0ft BGS			3MC		90		0.0
14	OL-ORGANIC SILTS, trace peat (natural), loose, fine grained, black, very moist	700.80				90		0.0
16	- organic silty clay, gray, firm, moist at 15.5ft BGS							
18				4MC		80		0.0
20	CL-SILTY CLAY, (natural), stiff, low plasticity, brown and gray, moist	695.70				80		0.0
	END OF BOREHOLE @ 20.0ft BGS	694.70						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.70 to 698.70ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.70 to 698.70ft BGS
4.00 to 16.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-15
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	714.55 714.50 714.12						
0	MH-SANDY SILTS, trace rootlets, trace organics (topsoil), loose, fine grained, brown, dry	714.00	CONCRETE SEAL BENTONITE CHIPS 2" PVC WELL CASING					
2	ML/CL-SILTS AND CLAY, trace fine grained rounded gravels (FILL), loose, fine grained, poorly graded, gray, damp	712.00		1MC 0-2' -205		80		4.4
4	MH-SANDY SILTS, (FILL), loose, fine grained, poorly graded, brown, moist					80		4.4
6			8-1/4" BOREHOLE					
8	- trace cinders/ash at 7.8ft BGS		2" PVC WELL SCREEN	2MC 7-9' -206		70		6.7
	SLUDGE-soft, white	705.50						
10	SP-SANDS, trace silts (natural), loose, fine grained, poorly graded, dark gray, very moist to wet, faint odor	705.00	SAND PACK	9-9.5' -207		70		10.1
12				3MC		90		14.3
	CL-SILTY CLAY, trace fine grained rounded gravels (FILL), (natural), stiff, low plasticity, gray, moist, homogeneous	701.10						
14						90		6.8
16								
18				4MC		100		6.9
20	END OF BOREHOLE @ 20.0ft BGS	694.50				100		7.4
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
710.50 to 700.50ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
711.50 to 700.50ft BGS
3.00 to 14.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-16
DATE COMPLETED: November 19, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	714.34 714.28 714.17						
0	SM-SILTY SANDS, trace rootlets/grass (FILL), loose, fine grained, poorly graded, medium brown, moist		CONCRETE SEAL BENTONITE CHIPS	1MC		80		0.0
2			2" PVC WELL CASING					
4	CONCRETE DEBRIS	710.88				80		0.0
	SP-SANDS, trace fine grained rounded gravels, trace silts, loose, fine grained, poorly graded, light brown, dry	710.38						
6	- gravels not present, light brown at 6.0ft BGS		8-1/4" BOREHOLE	2MC		85		0.0
8								
10						85		0.0
	- trace silts, wet at 11.0ft BGS		2" PVC WELL SCREEN					
12				3MC		60		0.0
	- gray at 13.0ft BGS		SAND PACK					
14								
		698.78				60		0.0
16	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist, homogeneous							
18	- 3" lens sandy silts at 17.5ft BGS			4MC		90		0.0
20		694.28				90		0.0
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.28 to 698.28ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.28 to 698.28ft BGS
4.00 to 16.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-17
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	TOP OF CASING 712.59 GROUND SURFACE 712.57 TOP OF RISER 712.40							
0	MH-SANDY SILTS, trace clay (FILL), compact, fine grained, poorly graded, brown, moist		CONCRETE SEAL BENTONITE CHIPS					
2				1MC 0-2' -203		80		6.1
4	- 2" lens sands at 3.8ft BGS		2" PVC WELL CASING					
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, medium brown, moist	707.97				80		14.2
6			8-1/4" BOREHOLE					
8	MH-SILTS WITH SANDS, (FILL), compact, fine grained, poorly graded, brown and gray layers, moist	704.67	2" PVC WELL SCREEN	2MC 8-10' -204		80		15.4
10	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, gray, wet, odor	702.77	SAND PACK			80		20.7
12	- 3" lens silty clay at 11.6ft BGS			3MC		90		25.1
	CL-SILTY CLAY, (FILL), firm, low plasticity, gray, moist	699.67 699.27						
14	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, gray, wet	698.77				90		28.8
16	ML-SILTS AND CLAY, trace fine grained sands, compact, fine grained, poorly graded, gray, moist			4MC		100		14.9
18	CL-SILTY CLAY, trace fine grained rounded gravels (TILL), (natural), stiff, low plasticity, gray, moist	694.57						
20	END OF BOREHOLE @ 20.0ft BGS	692.57				100		11.3
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.07 to 698.07ft BGS
4.50 to 14.50ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
709.07 to 698.07ft BGS
3.50 to 14.50ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-18
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	711.66 711.66 711.36						
0	SM-SILTY SANDS, (FILL), trace roots, loose, fine grained, poorly graded, dark brown, very moist		CONCRETE SEAL BENTONITE CHIPS					
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, medium brown, moist	709.16	2" PVC WELL CASING	1MC 0-2'-200		60		10.1
4	SM-SANDS WITH SILTS, (FILL), compact, fine grained, poorly graded, orange-brown, moist	707.16 706.16				60		22.3
6	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist	704.46	8-1/4" BOREHOLE	2MC 7.5-9.5'-201		75		24.1
8	MH-SANDY SILTS (FILL), loose, fine grained, poorly graded, brown, moist	703.86						
10	SP-SANDS, trace silts, compact, fine grained, poorly graded, brown, moist - black, wet, strong odor at 9.5ft BGS		2" PVC WELL SCREEN			75		325
12			SAND PACK	3MC		75		550
14	- sheen present at 15.0ft BGS					75		585
16	CL-SILTY CLAY, trace fine grained rounded gravels (till), (natural), stiff, low plasticity, gray, moist, homogeneous	696.16						
18				4MC		100		6.6
20	END OF BOREHOLE @ 20.0ft BGS	691.66				100		6.2
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
705.16 to 695.16ft BGS
6.50 to 16.50ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
707.16 to 695.16ft BGS
4.50 to 16.50ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-19
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	714.07 713.99 713.54						
0	SM-SILTY SANDS, trace rootlets, trace organics (topsoil), (FILL), loose, fine grained, poorly graded, dark brown, moist	713.69	CONCRETE SEAL BENTONITE CHIPS					
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, yellow-brown, dry - trace fine grained subrounded gravels at 2.0ft BGS			1MC		100		0.0
4								
6			2" PVC WELL CASING			100		0.0
8			8-1/4" BOREHOLE	2MC		100		30.0
	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, light brown, damp	706.19						
10	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, orange-brown, moist - wet at 9.7ft BGS - gray, odor present at 10.5ft BGS	704.99				100		30.2
12			2" PVC WELL SCREEN					
			SAND PACK	3MC		80		104
14	- black, stronger odor, slight sheen at 14.1ft BGS							
	CL-SILTY CLAY, trace fine grained rounded gravels (till), stiff, low plasticity, gray, moist, homogeneous	699.19				80		151
16								
18				4MC				24.1
20	END OF BOREHOLE @ 20.0ft BGS	693.99						6.6
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.99 to 698.99ft BGS
5.00 to 15.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.99 to 698.99ft BGS
3.00 to 15.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-22
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE 713.70 TOP OF CASING 713.62 TOP OF RISER 713.39							
0	ASPHALT	713.50	CONCRETE SEAL BENTONITE CHIPS					
	SP-SANDS, (FILL), trace silts, compact, fine grained, poorly graded, light brown, damp			1MC		100		0.0
2			2" PVC WELL CASING					
4	- 1-1/2" lens silty sands, moist at 4.8ft BGS - with silts, moist at 5.5ft BGS					100		0.0
6								
8	- 3" lens silts at 7.7ft BGS - 3" lens silts at 8.3ft BGS		8-1/4" BOREHOLE	2MC		100		0.0
10	- trace silts at 10.0ft BGS					100		0.0
12	- medium grained, gray at 11.2ft BGS - wet at 11.8ft BGS - 2" lens orange oxidation at 12.3ft BGS - with silts, fine grained at 12.7ft BGS		2" PVC WELL SCREEN SAND PACK	3MC		100		0.0
14								
16	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist - 2.5" lens wet silty sands at 16.3ft BGS	698.10				100		0.0
18	- trace fine grained rounded gravels at 18.7ft BGS			4MC		100		0.0
20	END OF BOREHOLE @ 20.0ft BGS	693.70				100		0.0
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
706.70 to 696.70ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.70 to 696.70ft BGS
5.00 to 17.00ft BGS
Material: #6 SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-22R
DATE COMPLETED: February 27, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.40	BENTONITE; 2" PVC WELL CASING; 3" BOREHOLE				
2	SP-SANDS (FILL), trace silts, compact, fine grained, poorly graded, light brown, damp			1AL		55	
4	- 1.4' seam silty sands at 4.6ft BGS						
6	- silt lens at 7.0ft BGS		2" PVC WELL SCREEN; SAND PACK	2AL		70	
8							
10	- medium grained, gray at 11.2ft BGS		▽				
12	- orange oxidation at 12.5ft BGS			3AL		80	
14	CL-SILTY CLAYS, firm, medium plasticity, gray, saturated	14.60					
16	END OF BOREHOLE @ 15.0ft BGS	15.00					
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							

WELL DETAILS
Screened interval:
5.00 to 15.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 15.00ft BGS
Material: #5 SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

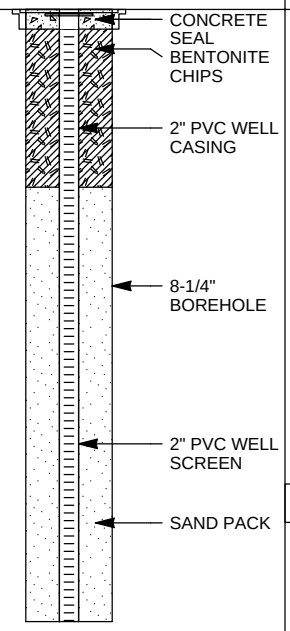
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-23
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	TOP OF CASING	711.88
	GROUND SURFACE	711.85
	TOP OF RISER	711.57
0	CL-SILTY CLAY, trace fine grained rounded gravels (FILL), firm ,low plasticity, gray, moist	
8	MH-SILTS WITH SANDS, (FILL), loose, fine grained, poorly graded, brown, moist	704.65
	CONCRETE DEBRIS	704.05
	CL-SILTY CLAY, trace sands (FILL), firm, low plasticity, gray, moist	703.75
10	MH-SANDY SILTS, (FILL), compact, fine grained, poorly graded, brown and gray, moist	702.35
12	GM-SILTY SAND-GRAVEL, (FILL), compact, fine grained angular, poorly graded, dark gray, moist	700.05
		699.65
		698.95
14	MH-SANDY SILTS, (FILL), compact, fine grained, poorly graded, brown, very moist	697.55
	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, brown, wet	
16	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist, homogeneous	
20	END OF BOREHOLE @ 20.0ft BGS	691.85



WELL DETAILS
Screened interval:
706.35 to 696.35ft BGS
5.50 to 15.50ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
707.35 to 696.35ft BGS
4.50 to 15.50ft BGS
Material: #6 SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1MC		90		0.0
		90		0.0
2MC		90		0.0
		90		0.0
3MC		90		0.0
		90		0.0
4MC		100		0.0
		100		N/A

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-24
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH/4-1/4 HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOP OF CASING GROUND SURFACE TOP OF RISER	716.81 716.77 716.64						
0	ASPHALT	716.52	BENTONITE CHIPS	1DP				0.0
2	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, brown, moist		2" PVC WELL CASING					
4								
6			8-1/4" BOREHOLE					
8				2DP				0.0
10			2" PVC WELL SCREEN					
12			SAND PACK					
14	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, light brown, moist, brown-orange banding in areas, oxidation - saturated, gray-brown at 14.3ft BGS	704.27		3DP 13-14' -325				0.0
16								
18	- gray at 17.5ft BGS CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	698.77		4DP				0.0
20	END OF BOREHOLE @ 20.0ft BGS	696.77	NATURAL COLLAPSE					
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
708.77 to 698.77ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
710.77 to 698.77ft BGS
6.00 to 18.00ft BGS
Material: SANDS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-25
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.47						
0	CONCRETE, with fine subrounded gravels, white, competent	717.97	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, orange-brown, moist			1DP				18.4
4	- brown at 2.5ft BGS - light brown at 3.5ft BGS		8-1/4" BOREHOLE 2" PVC WELL CASING	2DP				8.3
6			BENTONITE CHIPS					
8	- trace to with clays at 7.5ft BGS - no clays at 8.0ft BGS			3DP				28.4
10	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist	708.97		4DP				112
12	- brown-gray, saturated at 11.5ft BGS		SAND PACK					
14	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	704.97	2" PVC WELL SCREEN	5DP				50.0
16				6DP				3.4
18								
20	CL-SILTY CLAYS, firm, low plasticity, gray, moist END OF BOREHOLE @ 20.0ft BGS	699.72 698.47		7DP				2.1
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-28/MW19-27
DATE COMPLETED: February 28, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	716.90						
0	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete and brick), loose, very fine to fine grained, poorly graded, dark brown to brown, moist	715.40	SAND PACK					67.2
2		714.40	2" PVC WELL CASING	1AL		60		64.7
4	CL-SANDY CLAYS (FILL), trace silts and gravels, low plasticity, firm, brownish gray, moist	712.40	BENTONITE CHIPS					11.4
6	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete and brick), loose, very fine to fine grained, poorly graded, dark brown to brown, moist	710.90	3" BOREHOLE					282
8	SM-SILTY SANDS, compact, poorly graded, very fine to fine grained, tan brown, moist	707.90	▽	2AL		65		217
10	SP-SANDS, trace silts and brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown to black, moist, slight petroleum-like odor							136
12	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet, petroleum-like odor		2" PVC WELL SCREEN	3AL		80		58.3
14	- petroleum-like substance intermixed with water at 15.0ft BGS		SAND PACK					54.9
16								194
18	CH-CLAYS, trace silts, high plasticity ,firm, brownish gray, moist	698.90		4AL		85		157
20	END OF BOREHOLE @ 20.0ft BGS	696.90						
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
709.90 to 697.90ft BGS
7.00 to 19.00ft BGS
Length: 12ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
711.90 to 697.90ft BGS
5.00 to 19.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

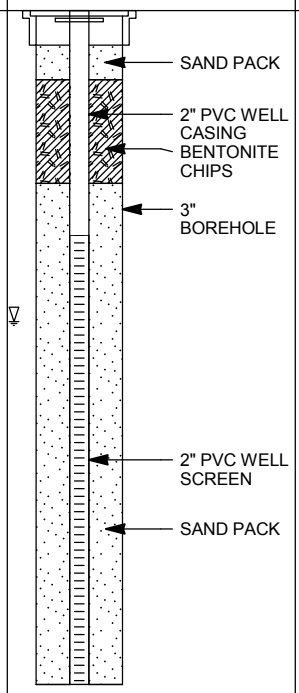
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-40/MW19-28
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist	1.00
	CL-SANDY CLAYS (FILL), trace silts and gravels, low plasticity, firm, brownish gray, moist	2.50
	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist	5.00
	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, tan, moist	6.00
	SP-SANDS, trace silts and brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown, moist	8.00
	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet	13.00
	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, gray, wet	17.00
	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	20.00
	END OF BOREHOLE @ 20.0ft BGS	

MONITORING WELL



WELL DETAILS
Screened interval:
6.50 to 19.50ft BGS
Length: 13ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 19.50ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				2.0
1AL		60		5.3
				13.4
2AL		65		89.8
				16.0
				278
3AL		80		127
				151
4AL		85		125
				33.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW23-01
DATE COMPLETED: March 1, 2006
DRILLING METHOD: GEOPROBE/DIRECT PUSH
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.33	BENTONITE					0
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, brown, moist			1AL		60		0
4			2" PVC WELL CASING					0
6	- increase in silts at 6.0ft BGS - 2" CL-SILTY CLAY seam, firm, low plasticity, brown gray, moist at 6.3ft BGS		3" BOREHOLE					0
8	- brown at 6.5ft BGS - red streaks (8-8.4'), very moist at 8.0ft BGS			2AL		70		0
10								0
12	- gray brown, wet at 11.5ft BGS							0
	- gray, slight petroleum-like odor at 13.0ft BGS		2" PVC WELL SCREEN	3AL		100		0
14			SAND PACK					51.2
16	- stronger petroleum-like odor at 15.8ft BGS			4AL		100		912
	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, very moist, slight petroleum odor	17.00 17.50						
18	END OF BOREHOLE @ 17.5ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
7.50 to 17.50ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Sand Pack:
5.00 to 17.50ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW23-02
DATE COMPLETED: March 1, 2006
DRILLING METHOD: GEOPROBE/DIRECT PUSH
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.33	SAND PACK					0
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, brown, moist		2" PVC WELL CASING BENTONITE CHIPS	1AL		30		0
4								0
6			3" BOREHOLE					0
8	- increase in silts, very moist, petroleum-like odor at 8.0ft BGS			2AL		40		0
10	- 1" CL-SILTY CLAY seam, trace fine sands, firm, low plasticity, brown, very moist at 9.6ft BGS							0
12	- brown gray, wet at 10.7ft BGS							0
14	- slight petroleum-like sheen, gray at 13.1ft BGS		2" PVC WELL SCREEN	3AL		80		33.5
16	- petroleum-like sheen present (15.6-16.3'), strong odor at 15.6ft BGS	16.10	SAND PACK	4AL		50		27.6
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist, slight petroleum-like odor	17.00						1666
20	END OF BOREHOLE @ 17.0ft BGS							
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 17.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

Date Start/Finish: 04/19/96 / 04/19/96
Drilling Company: Superior Environmental
Driller's Name: T. Germayne
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 20 ft.

Geologist: M.Mueller

Well No. MW-4

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										GROUND SURFACE	
										Fill material	Well cap; Cement pad
										Light brown sand	
5											Neat cement
										Brown sand	Bentonite seal
											2-inch Schedule 40 PVC riser
10											6/20 silica sand
15											0.010" slot stainless steel well screen
										Clay	
20											

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
04/24/96		12.29

Project: 480.43
Script: nbblwell
Date: 11/14/96

Date Start/Finish: 04/22/96 / 04/22/96
Drilling Company: Superior Environmental
Driller's Name: N. Massey
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 20 ft.

Geologist: M.Mueller

Well No. MW-5

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
0									Fill material	Well cap; Cement pad
									Orange/light brown sand	
5										Neat cement
										Bentonite seal
									Light brown/tan sand	2-inch Schedule 40 PVC riser
10										6/20 silica sand
15										0.010" slot stainless steel well screen
									Grey clay	
20										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
04/24/96		11.84 ▼

Project: 480.43
Script: nbblwell
Date: 11/14/96

Date Start/Finish: 04/22/96 / 04/22/96
Drilling Company: Superior Environmental
Driller's Name: N. Massey
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 20 ft.

Geologist: R.S.A. Sunderland

Well No. MW-6

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
0									Fill material, light brown, fine to medium sand, 20% brownish grey cobbles, poorly sorted	Well cap; Cement pad
									Sand, very dark brown, fine to medium grained, poorly sorted, 10% rounded gravel	
5									Sand, yellowish brown, fine to medium grained, poorly sorted, quartoze	Neat cement; Bentonite seal; 2-inch Schedule 40 PVC riser
10									Sandy clay, grey, soft, semi-cohesive	▼
									Sand, grey, fine to medium grained, poorly sorted, quartzose	6/20 silica sand
15									Clay, grey, firm, cohesive	0.010" slot stainless steel well screen
20										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
04/24/96		11.18 ▼

Date Start/Finish: 04/23/96 / 04/23/96
Drilling Company: Superior Environmental
Driller's Name: N. Massey
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** 7 5/8-in.
Rig Type: Mobile B-57
Spoon Size: 2-in.

Corehole Depth: N/A ft.
Borehole Depth: 20 ft.

Geologist: R.S.A. Sunderland

Well No. MW-7

Client:
General Motors Corporation

Location:
Complete Auto Transit Site
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
0									Fill material, light brown, fine to medium sand, 20% brownish grey cobbles, poorly sorted	Well cap; Cement pad
									Sand, yellowish brown, fine to medium grained, poorly sorted, quartoze	
5										Neat cement; Bentonite seal; 2-inch Schedule 40 PVC riser
10									Sand, grey, fine to medium grained, poorly sorted, quartzose Sand, olive grey, fine to medium grained, poorly sorted	6/20 silica sand
15										0.010" slot stainless steel well screen
									Sand, grey, fine to medium grained, poorly sorted	
20									Sandy clay, soft, semi-cohesive	

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
04/24/96		10.37 ▼

Project: 480.43
Script: nbblwell
Date: 11/14/96

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-01
DATE COMPLETED: May 23, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	702.27					
0	SM-SILTY SANDS (TOPSOIL), trace clays and fine gravels, loose, fine to coarse grained, poorly graded, dark brown, moist	701.52	BENTONITE CHIPS	1HA			
2	CL-SILTY CLAYS (NEW FILL), firm, low plasticity, gray, moist			2HA			
		699.27	2" BOREHOLE	3HA			
4	CL/CI-SILTY CLAYS (OLD FILL), firm, low to medium plasticity, brown-gray, moist			4HA			
			1" PVC WELL SCREEN	5HA			
6				6HA			
			NATURAL COLLAPSE/ SAND	7HA			
		694.97		8HA			
8	END OF BOREHOLE @ 7.3ft BGS						
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

WELL DETAILS
Screened interval:
699.97 to 694.97ft BGS
2.30 to 7.30ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
700.77 to 694.97ft BGS
1.50 to 7.30ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-02
DATE COMPLETED: May 23, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	703.49					
0	SM-SILTY SANDS (TOPSOIL), trace clays and fine gravels, loose, fine to coarse grained, poorly graded, dark brown, moist	702.74	BENTONITE CHIPS	1HA			
2	CL-SILTY CLAYS (NEW FILL), firm, low plasticity, gray, moist	700.49	2" BOREHOLE	2HA			
4	SM/CL-SANDS & CLAYS (OLD FILL), with silts, loose/soft, low to non plastic, dark gray to black, saturated, moderate petroleum-like odor, sheen to soils and water	699.74	1" PVC WELL SCREEN	3HA			
6	CL/CI-SILTY CLAYS (OLD FILL), firm, low to medium plasticity, brown-gray, moist	696.99	NATURAL COLLAPSE/ SAND	4HA			
8	END OF BOREHOLE @ 6.5ft BGS			5HA			
10				6HA			
12				7HA			
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

WELL DETAILS
Screened interval:
700.99 to 696.99ft BGS
2.50 to 6.50ft BGS
Length: 4ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
701.99 to 696.99ft BGS
1.50 to 6.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-102/PZ18-102
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.15						
0	SW-SANDS (topsoil), fine and medium grained, trace black foundry sand, some vegetation, loose, dark brown, wet	698.35	BENTONITE CHIPS	1AL		80		0.0
2	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist		2" BOREHOLE					
4			1" PVC WELL SCREEN	2AL		95		0.0
6	END OF BOREHOLE @ 6.0ft BGS	693.15	NATURAL COLLAPSE/ SAND	3AL		95		0.0
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
698.15 to 693.15ft BGS
1.00 to 6.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
698.15 to 693.15ft BGS
1.00 to 6.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

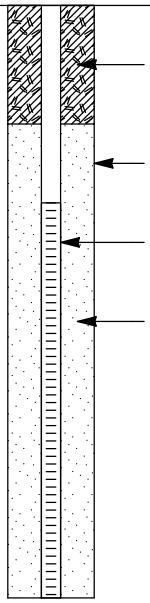
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-126/PZ18-126
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.07
0	ASPHALT	714.77
	SP-SANDS (FILL), fine grained, poorly graded, dense, light brown, moist	
2		
4		
6		
	- oxidation staining at 7.1ft BGS	707.87
8	SM-SILTY SANDS, trace clays, fine sands, medium plasticity, dark gray, moist to wet	706.77
	SP-SANDS, fine grained, poorly graded, dense, gray, wet	
10		
12		
	- strong petroleum odor at 13.4ft BGS	701.57
14	ML/CL-SILTS AND SILTY CLAYS, trace fine sands, soft, medium plasticity, gray, moist	700.57
	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.07
16	END OF BOREHOLE @ 15.0ft BGS	
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
710.07 to 700.07ft BGS
5.00 to 15.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.07 to 700.07ft BGS
3.00 to 15.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL				13.1
2AL				29.4
3AL				57
4AL				67.9
5AL				42.4
6AL				61.3
7AL				--
8AL				--

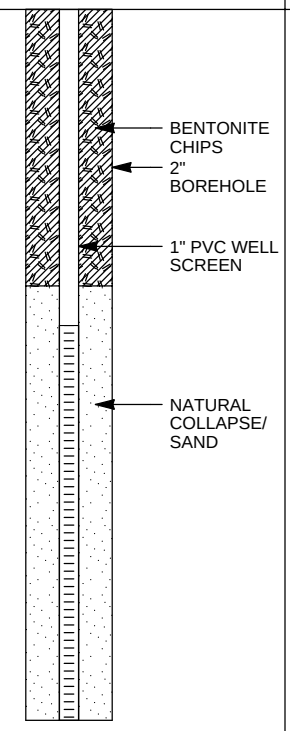
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-127/PZ18-127
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.12						
0	ASPHALT	714.82						
	SW-SANDS (FILL), fine to medium grained, well graded, dark brown, dense, moist			1AL				10.4
2								
4				2AL				16.1
6				3AL				89
	- debris (glass) at 7.1ft BGS	707.92						
8	SP-SANDS (FILL), fine grained, poorly graded, dense, dark brown			4AL				>2000
	- 0.2" silty sands at 8.1ft BGS							
	- 0.2" silty sands at 8.5ft BGS							
10				5AL				>2000
12	- oxidation staining at 12.5ft BGS							
14	- becoming black, strong odor at 14.0ft BGS			6AL				>2000
	- becoming gray at 15.1ft BGS							
16	- black, strong odor at 16.5ft BGS			7AL				>2000
	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	697.92						
18				8AL				29.1
20	END OF BOREHOLE @ 20.0ft BGS	695.12						
22								
24								
26								
28								
30								
32								
34								



WELL DETAILS
Screened interval:
707.12 to 697.12ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.12 to 697.12ft BGS
7.00 to 18.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

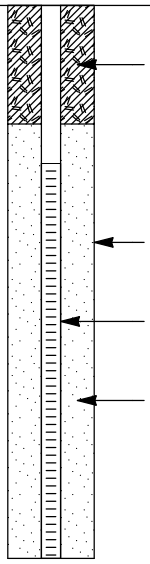
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-128/PZ18-128
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.12
0	ASPHALT	714.82
2	SW-SANDS (FILL), fine to medium sands, trace fine gravels, well graded, dense, dark brown, moist	
4		
6		
7.5	- debris (glass) at 7.5ft BGS	707.92
8	SP-SANDS, fine grained, trace medium sands, poorly graded, dense, dark brown, moist	
10	SM-SILTY SANDS, with clays, trace fine and medium sands, semi-competent, medium plasticity, soft, brown, moist, strong odor	705.32
12	SP-SANDS (FILL), fine grained, poorly graded, dense, black, wet, strong odor	703.12
12.5	- becoming gray at 12.5ft BGS	701.92
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	
15	END OF BOREHOLE @ 15.0ft BGS	700.12
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
711.12 to 701.12ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.12 to 701.12ft BGS
3.00 to 14.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL				10.1
2AL				36.4
3AL				42.1
4AL				54
5AL				>2000
6AL				>2000
7AL				36.9
8AL				21.1

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-130
DATE COMPLETED: September 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.62						
2	SW-SANDS (FILL), trace silts, trace vegetation (rootlets), loose, well graded, fine and medium grained, with coarse grained, dark brown, moist		BENTONITE CHIPS	1AL		90		
		711.62						
4	SP-SANDS, trace to with silts, loose to compact, poorly graded, light brown, moist							
6	- orange hue, slightly plastic at 5.5ft BGS		2" BOREHOLE					
8				2AL		80		90.8
	- very moist at 9.0ft BGS							131
10		704.62						
	SM-SILTY SANDS, compact, poorly graded, fine grained, brown, wet							>2000
12			1" PVC WELL SCREEN	3AL		80		>2000
		701.62						
14	SP-SANDS, trace silts, loose to compact, poorly graded, fine with medium grained, dark gray, wet (oily sheen for top 2-inches)							>2000
	- black at 13.5ft BGS							
16	- dark gray at 14.5ft BGS		NATURAL COLLAPSE/ SAND					>2000
18				4AL		100		
	- brown at 19.0ft BGS							>2000
20		694.62						
	CL-CLAYS, stiff, low plasticity, dark gray/brown, moist, petroleum-like odor and oily-like substance between liner and clay							
22				5AL		100		
24								
		689.62						
26	END OF BOREHOLE @ 25.0ft BGS							
28								
30								
32								
34								

WELL DETAILS
Screened interval:
704.62 to 689.62ft BGS
10.00 to 25.00ft BGS
Length: 15ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
704.62 to 689.62ft BGS
10.00 to 25.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-131
DATE COMPLETED: September 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.00						
0	SP-SANDS, trace silts, trace vegetation (rootlets), loose, poorly graded, brown to dark brown, moist		BENTONITE CHIPS					32
2	- light brown, no vegetation trace fine angular gravels at 1.0ft BGS			1AL		60		39.5
4			2" BOREHOLE					
6	- orange hue at 5.0ft BGS							34.9
		706.00						35.1
8	CH-SILTY CLAYS, firm, high plasticity, orange and brown mottled, moist	705.00	1" PVC WELL SCREEN	2AL		80		
	- trace vegetation (rootlets) at 7.8ft BGS							76
10	SM-SILTY SANDS, compact, poorly graded, fine grained, brown, trace orange hue, wet		NATURAL COLLAPSE/ SAND					
	- 2" clay nodule at 10.0ft BGS							64.2
	- 2" clay nodule at 11.0ft BGS							
12	SP-SANDS, trace to with silts, compact, poorly graded, fine grained, with medium grained, dark gray, wet	701.50		3AL				42.2
14								
		698.00						39.9
16	CH-CLAYS, firm to stiff, high plasticity, dark gray, moist							36.7
18				4AL				
								36
20	END OF BOREHOLE @ 20.0ft BGS	693.00						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
707.00 to 697.00ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
707.00 to 693.00ft BGS
6.00 to 20.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-132
DATE COMPLETED: September 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.93						
2	SC-CLAYEY SANDS, trace vegetation (grass and rootlets), loose, poorly graded, fine grained, trace medium grained, brown, very moist to wet	701.93	BENTONITE CHIPS					762
	SM/SP-SANDS AND SILTY SANDS, loose, to compact, poorly graded, fine grained, black, wet, slight sheen, petroleum-like odor	700.93	2" BOREHOLE 1" PVC WELL SCREEN	1AL		75		522
4	CL-CLAYS, firm, medium plasticity, dark brown, moist	698.93	NATURAL COLLAPSE/ SAND					
6	END OF BOREHOLE @ 5.0ft BGS							
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.93 to 697.93ft BGS
1.00 to 6.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
702.93 to 698.93ft BGS
1.00 to 5.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

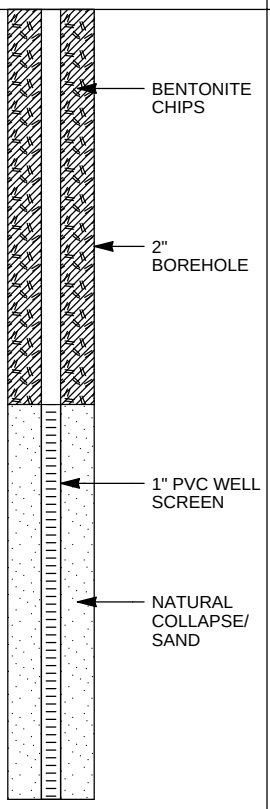
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-133
DATE COMPLETED: September 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.68
0	GRAVEL FILL, light gray, angular	714.68
2	SP-SANDS, trace to with silts, loose to compact, poorly graded, fine grained, trace medium grained, brown with slight orange hue, moist	
4		
5	- strong orange coloration at 5.0ft BGS	
6		
8	SM-SILTY SANDS, compact, poorly graded, fine grained, slightly plastic, dark brown, moist	707.68
10	- wet at 10.5ft BGS	
11	CH-CLAYS, stiff, high plasticity, dark gray, moist	704.68
12		
13	SM-SILTY SANDS, compact, poorly graded, fine grained, trace medium grained, dark gray, wet	702.68
14		
16		
18		
19	CL-CLAYS, stiff, medium plasticity, dark gray, moist	696.68
20	END OF BOREHOLE @ 20.0ft BGS	695.68
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
705.68 to 695.68ft BGS
10.00 to 20.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
705.68 to 695.68ft BGS
10.00 to 20.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				5
1AL		70		29.7
				30.6
				33
2AL		80		
				38
				22.9
3AL		90		28
				22.4
				24.1
4AL				23.3

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

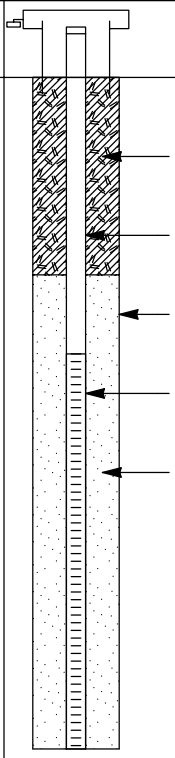
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-140/PZ18-140
DATE COMPLETED: September 10, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	713.91
0	SM-SILTY SANDS, compact, fine to medium grained, poorly graded, brown, moist, some yellow streaking	
4	- tan/beige, fine grained at 4.0ft BGS	
6		707.41
8	SM/ML-SANDS AND SILTS, compact to dense, fine sands, non plastic, light brown and orange brown, moist	
10		704.91
12	SM-SILTY SANDS, dense, fine grained, poorly graded, light brown and gray brown, moist - very moist to saturated, gray and orange banded at 12.0ft BGS - black and dark gray, saturated, petroleum-like odor (moderate) at 12.5ft BGS	
16	- strong petroleum-like odor, DNAPL-dark brown at 15.8ft BGS	697.91
18	CL/CI-SILTY CLAYS, trace fine sands, firm, low to medium plasticity, gray, moist, moderate petroleum-like odor	
20	END OF BOREHOLE @ 20.0ft BGS	693.91
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
706.91 to 696.91ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.91 to 696.91ft BGS
5.00 to 17.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		75		7.3
2AL		75		7
3AL		90		6.8
4AL		90		13.5
5AL		90		336
6AL		90		356
7AL		90		65.8
8AL 17.5-20 -611		90		17.4

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-195
DATE COMPLETED: October 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	701.10					
0	SW-SANDS		BENTONITE CHIPS				
	- wet at 1.5ft BGS		1" PVC WELL SCREEN				
2	CL-CLAYS	699.10	2" BOREHOLE				
4			NATURAL COLLAPSE/ SAND				
	- REFUSAL at 5.0ft BGS	696.10					
6	END OF BOREHOLE @ 5.0ft BGS						
8							
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

WELL DETAILS
Screened interval:
700.10 to 696.10ft BGS
1.00 to 5.00ft BGS
Length: 4ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
700.60 to 696.10ft BGS
0.50 to 5.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-196
DATE COMPLETED: October 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	708.56					
0	NO STRATIGRAPHIC LOG AVAILABLE		BENTONITE CHIPS 2" BOREHOLE 1" PVC WELL SCREEN NATURAL COLLAPSE/ SAND				
8	END OF BOREHOLE @ 8.0ft BGS NOTE: CLAY FROM 7.8-8ft BGS	700.56	WELL DETAILS Screened interval: 705.56 to 700.56ft BGS 3.00 to 8.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC Sand Pack: 706.06 to 700.56ft BGS 2.50 to 8.00ft BGS				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-197
DATE COMPLETED: October 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	703.36					
0	NO STRATIGRAPHIC LOG AVAILABLE		BENTONITE CHIPS; 2" BOREHOLE; 1" PVC WELL SCREEN; NATURAL COLLAPSE/ SAND				
2							
4							
6	END OF BOREHOLE @ 5.0ft BGS NOTE: CLAY FROM 2.3-5.0ft BGS						
8		695.36					
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

WELL DETAILS
Screened interval:
702.86 to 698.36ft BGS
0.50 to 5.00ft BGS
Length: 4.5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
702.86 to 698.36ft BGS
0.50 to 5.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: PZ18-198
DATE COMPLETED: October 8, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	707.94					
	NO STRATIGRAPHIC LOG AVAILABLE		BENTONITE CHIPS 2" BOREHOLE; 1" PVC WELL SCREEN; NATURAL COLLAPSE/ SAND				
	END OF BOREHOLE @ 7.0ft BGS	700.94					
	NOTE: CLAY AT 6.5ft BGS						

WELL DETAILS
Screened interval:
705.94 to 700.94ft BGS
2.00 to 7.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
706.44 to 700.94ft BGS
1.50 to 7.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-73/PZ18-73
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	709.65						
2	SM-SILTY SANDS, trace clays and fine gravels, loose, fine to medium grained, poorly graded, dark brown, moist - brown at 0.8ft BGS			1DP (0-2', -344)				0.2
4	- orange-brown oxidation at 3.8ft BGS			2DP				0.3
6	- brown, slight petroleum-like odor at 5.5ft BGS - gray, very moist, moderate petroleum-like odor at 6.8ft BGS		2" BOREHOLE 1" PVC WELL SCREEN	3DP (5-7', -345)				68.3
8	- saturated, black, sheen on water at 7.0ft BGS	701.65		4DP				38.3
10	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist, slight petroleum-like odor - no odor at 9.0ft BGS		BENTONITE CHIPS	5DP				12.8
12				6DP				0.2
14	END OF BOREHOLE @ 13.0ft BGS	696.65						
16	NOTE: SOIL BORING COMPLETED MAY 24, 2004, TEMPORARY MONITORING WELL COMPLETED SEPTEMBER 8, 2004							
18								
20								
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24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
705.65 to 700.65ft BGS
4.00 to 9.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-87/PZ18-87
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.08						
2	SW-SANDS (FILL), fine to medium sands, well graded, loose, dark brown, moist - wet at 2.0ft BGS	700.78	BENTONITE CHIPS 3" BOREHOLE	1AL		100		0.0
4	SC/CL-SANDS AND SANDY CLAYS (FILL), reworked, weathered, trace medium sands, trace plasticity, olive-gray, moist	697.88	1" PVC WELL SCREEN NATURAL COLLAPSE/ SAND	2AL		100		0.0
6	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist			3AL		100		0.0
8	END OF BOREHOLE @ 7.5ft BGS	695.58						
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.08 to 697.08ft BGS
1.00 to 6.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
702.08 to 695.58ft BGS
1.00 to 7.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

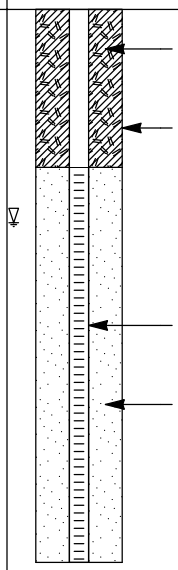
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-96/PZ18-96
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	709.17
0	SW-SANDS (FILL), fine to medium sands, trace vegetation, well graded, loose, dark brown, moist	707.97
2	SP-SANDS (FILL), fine grained, poorly graded, loose, intermittent oxidation banding, rust brown, moist	
4		
6	- wet at 5.4ft BGS - some foundry sand, black, sheeny at 5.5ft BGS	
8	- trace oily droplets, brown, strong odor at 8.0ft BGS - becoming dark brown, strong odors at 8.8ft BGS	
10	- foundry sand, black at 9.8ft BGS	699.07
12	CI-SILTY CLAYS (native), trace fine sands, compact, low plasticity, gray, moist	
14	END OF BOREHOLE @ 13.0ft BGS	696.17
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
705.17 to 695.17ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
705.17 to 695.17ft BGS
4.00 to 14.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		70		0.0
2AL		70		8
3AL		85		>2000
4AL		85		649

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-97/PZ18-97
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.58						
2	SW/SC-SANDS AND SANDY CLAYS, fine and medium sands, trace rootlets, well graded, trace plasticity, dark brown, very moist to wet		BENTONITE CHIPS	1AL		90		0.0
	- black staining, weathered, reworked clay at 3.0ft BGS	697.48	2" BOREHOLE 1" PVC WELL SCREEN	2AL		90		1.6
4	CI-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist		NATURAL COLLAPSE/SAND					
	- weathered, olive gray at 4.3ft BGS			3AL		90		3.1
6	END OF BOREHOLE @ 6.0ft BGS	694.58						
8	NOTE: SOIL BORING COMPLETED ON AUGUST 25, 2004, TEMPORARY MONITORING WELL COMPLETED ON SEPTEMBER 8, 2004							
10			WELL DETAILS Screened interval: 699.58 to 694.58ft BGS 1.00 to 6.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC Sand Pack: 699.58 to 694.58ft BGS 1.00 to 6.00ft BGS					
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB-1-03
DATE COMPLETED: March 7, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHÉ

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SANDS, trace silts, loose, poorly graded, fine grained, brown, moist	0.16	2" BOREHOLE					
	CONCRETE DEBRIS	0.50						
2	SP-SANDS, trace silts, trace fine subrounded gravels, loose, poorly graded, fine grained, trace medium grained, brown, moist		BENTONITE CHIPS	1AL 2-4'		60		5.7
4	SC-CLAYEY SANDS, trace fine subrounded gravels, compact, poorly graded, fine grained, trace coarse grained, dark brown, moist	4.00						
6	CH-SANDY CLAYS, soft, low plasticity, dark brown, moist	6.00						
8				2AL 8-10'		70		118
	SP-SANDS, trace silts, loose, poorly graded, fine grained, trace medium grained, brown, moist	9.00						
10	- light gray and black at 9.5ft BGS	11.00						
12	CH-SANDY CLAYS, firm, low plasticity, brown/black mottled, moist			3AL 12-15'				311
	SP-SANDS, trace silts, loose, poorly graded, fine grained, trace medium grained, brown, wet, slight petroleum-like odor	13.50						
14	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser Frazer Dump Area PAOC 18 15' north of fence and 10' west of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 9, 1996	
BORING NO.: SB–18–1	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 13' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 5 (2'–4') (Pb Only)
WEATHER: Cloudy, 28°, Wind – West 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO		SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH, lPAH	0–1.5' Silty sand, dark yellowish brown (10YR 4/2)
2		6"	2'	Pb, PAH, lPAH	1.5'–2.5' Silty sand, iron slag, moderate brown.
3		2'	4'	Pb, PAH, lPAH, Dup Pb	2.5'–8.5' Silty sand, moderate yellowish brown (10YR 5/4) to grayish orange (10YR 7/4)
4		4'	6'	Pb, PAH, lPAH	
5		6'	8'	Pb, PAH, lPAH	
6		8'	10'	Pb, PAH, lPAH	8.5'–10.5' Clayey sand – gravelly sand, dark yellowish brown (10YR4/2).
7		10'	12'	Pb, PAH, lPAH	10.5'–12.5' Silty sand/sandy silt, dark yellowish orange. 12.5'–14.0' Silty clay – sandy clay, discolored grayish black (N2) to olive gray (5Y 4/1)*
8		12'	13'	Pb, PAH, lPAH	End of boring = 14'BGS.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

*Note: Discolored soils at 12.5' – 14' soil interval.

m:\480\01770266.wk3

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 10, 1996

BORING NO.: SB-18-10

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Mostly cloudy, 40°, Wind - West 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 17' north of fence and 106' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 10' BGS

COMMENTS: 14:50 Prepared field equipment blank 2T off inside of plastic sampling tube (12'-14' interval) - (Pb and PAH) Duplicate 3T (6'-8') - (Pb)

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH IPAH	0-5' Silty sand to clayey sand, some gravel, dark yellowish brown (10YR 4/2); brick, metal, glass and paint fragments (solidified).
2		6"	2'	Pb, PAH IPAH	
3		2'	4'	Pb, PAH IPAH	
4		4'	6'	Pb, PAH IPAH	5'-7' Silty sand, dark yellowish orange (10YR 6/6).
5		6'	8'	Pb, PAH IPAH Dup Pb-Lab	7'-7.5' Silty sand, dark yellowish orange (10YR 6/6); glass, paint (solidified) and unidentifiable debris.
6		8'		10'	7.5'-8.5' Silty clay, brownish black (5YR 2/1), hydrocarbon odors. 8.5'-10' Silty-sandy clay, grayish brown (5YR 3/2).
		7			10'-12' Clayey sand to silty sand, light olive gray (6/1). End of boring = 12' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-100
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.16						
0	SW-SANDS (topsoil), fine and medium sands, some vegetation, well graded, wet, brown	698.36	2" BOREHOLE	1AL				0.1
2	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist		BENTONITE CHIPS					
4				2AL				0.0
6	END OF BOREHOLE @ 6.0ft BGS	693.16		3AL				0.0
8								
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32								
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-101
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.62						
0	SW-SANDS (topsoil), fine and medium sands, some vegetation, well graded, wet, brown	698.82	2" BOREHOLE	1AL		80		0.0
2	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist		BENTONITE CHIPS	2AL		80		0.0
4								
6	END OF BOREHOLE @ 6.0ft BGS	693.62		3AL		85		0.0
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-102/PZ18-102
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.15						
0	SW-SANDS (topsoil), fine and medium grained, trace black foundry sand, some vegetation, loose, dark brown, wet	698.35	BENTONITE CHIPS	1AL		80		0.0
2	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist		2" BOREHOLE					
4			1" PVC WELL SCREEN	2AL		95		0.0
6	END OF BOREHOLE @ 6.0ft BGS	693.15	NATURAL COLLAPSE/ SAND	3AL		95		0.0
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30								
32								
34								

WELL DETAILS
Screened interval:
698.15 to 693.15ft BGS
1.00 to 6.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
698.15 to 693.15ft BGS
1.00 to 6.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-103
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	698.79						
0	SW-SANDS (topsoil), fine and medium sands, some vegetation, well graded, black, wet	698.59	2" BOREHOLE	1AL		90		0.7
2	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist		BENTONITE CHIPS	2AL		90		0.0
6	END OF BOREHOLE @ 6.0ft BGS	692.79		3AL		90		0.0
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-104
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.54						
0	SW-SANDS (topsoil), fine to medium sands, trace sandy clays, trace plasticity, well graded, dark brown, wet	698.34	2" BOREHOLE	1AL		95		0.2
2	CL-SILTY CLAYS (native), trace fine sands, very stiff, competent, low plasticity, gray, moist		BENTONITE CHIPS	2AL		95		0.0
4								
6	END OF BOREHOLE @ 6.0ft BGS	693.54		3AL		95		0.0
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-105
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.63						
0	SW-SANDS (topsoil-fill), fine to medium sands, trace sandy clays, trace plasticity, well graded, dark brown, wet	699.43	2" BOREHOLE	1AL		95		0.0
2	CL-SILTY CLAYS (native), trace fine sands, very stiff, competent, low plasticity, gray, moist		BENTONITE CHIPS	2AL		95		0.0
4								
6	END OF BOREHOLE @ 6.0ft BGS	694.63		3AL		95		0.0
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-106
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	711.24						
0	SW-SANDS (FILL), fine to medium sands, trace vegetation, well graded, dark brown, moist	710.04	2" BOREHOLE	1AL		80		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist			2AL		80		0.0
4			BENTONITE CHIPS	3AL		85		0.0
6				4AL		85		0.0
8	- very moist at 8.0ft BGS - wet at 8.3ft BGS			5AL		85		--
10	- trace oily product, brown, strong odor at 9.0ft BGS - trace oily product, brown, strong odor at 9.8ft BGS	700.24		6AL		85		--
12	- black foundry sand, sheeny at 10.0ft BGS CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist	699.74						
14	END OF BOREHOLE @ 11.5ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-107
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	712.89						
0	SW-SANDS (FILL), fine to medium sands, well graded, some vegetation, loose, dark brown, moist			1AL		80		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, dense, light brown, moist	710.89	2" BOREHOLE					
4			BENTONITE CHIPS	2AL		80		0.0
	- rust brown color at 5.0ft BGS							
6				3AL		75		6
8								
	- becoming grayish brown at 9.0ft BGS			4AL		75		13.2
10	- very moist at 10.0ft BGS	702.59	▽					
	SM-SILTY SANDS, some fine sands, compact, dark brown, moist	702.29		5AL		75		>2000
12	SP-SANDS, fine grained, poorly graded, compact, multicolored, laminated product layers, strong odor, wet	700.19						
	- oily brown product, strong odor at 11.0ft BGS	699.89						
14	- black foundry sand, sheeny at 12.4ft BGS							
	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist							
16	END OF BOREHOLE @ 13.0ft BGS							
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-108
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	712.79						
0	SW-SANDS (FILL), fine to coarse grained, some rootlets, well graded, loose, dark brown, moist			1AL		70		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist	710.79	2" BOREHOLE					
4			BENTONITE CHIPS	2AL		70		0.0
6	- trace oxidation banding at 6.0ft BGS			3AL		70		0.0
8	- glass fragments at 8.3ft BGS - trace silts at 9.0ft BGS			4AL		70		--
10	- trace laminated layers of product, brown, wet at 10.0ft BGS - trace laminated layers of product, brown, strong odor at 10.2ft BGS		▽	5AL		70		784
12	- trace laminated layers of product, brown, strong odor at 10.4ft BGS	700.19						
14	- black foundry sand at 12.0ft BGS CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist	699.79						
16	END OF BOREHOLE @ 13.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-109
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.08						
0	SW-SANDS (FILL), fine to medium sands, trace vegetation, well graded, loose, dark brown, moist	712.48	2" BOREHOLE	1AL		90		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist - glass fragments at 3.0ft BGS		BENTONITE CHIPS	2AL		90		0.1
4	- trace silts at 5.0ft BGS			3AL		85		0.3
6				4AL		85		31.2
8	- becoming rust brown at 9.0ft BGS			5AL		95		>2000
10	- wet at 11.0ft BGS - becoming black, foundry sand at 11.5ft BGS - sheeny, strong odor at 12.0ft BGS - trace product, brown at 12.2ft BGS			6AL		95		>2000
12	- oily product, strong odor, brown at 12.4ft BGS	699.58						
14	- oily product, strong odor, brown at 13.0ft BGS	699.08						
16	CI-SILTY CLAYS (native), trace fine sands, compact, stiff, low plasticity, gray, moist END OF BOREHOLE @ 14.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 12, 1996

BORING NO.: SB-18-11

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Overcast, 38°, Wind - NE 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 25' north of fence and 96' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11' BGS

COMMENTS: Duplicate 3 TH (2'-4') (Pb)

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0-5' Silty sand to clayey sand, some gravel, dark yellowish brown (10YR 4/2); brick, metal, glass and paint fragments (solidified).
2		6"	2'	Pb	
3		2'	4'	Dup Pb	
4		4'	6'	Pb	5'-6' Silty sand, dark yellowish orange (10YR 6/6).
5		6'	8'	Pb, PAH	6'-8' solidified paint? waste, rock fragments.
6		8'	10'	Pb	8'-10' Silty-sandy clay, grayish brown (5YR 3/2).
7		10'	11'	Pb	10'-12' Clayey sand to silty sand, light olive gray (6/1).
					End of boring = 12' BGS

REMARKS

Pb - lead

PAH - polynuclear aromatic hydrocarbons

IPAH - PAH sample collected for immunoassay

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-110
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	708.35						
0	SW-SANDS (FILL), fine to medium grained, some vegetation, dark brown, moist	707.45	2" BOREHOLE; BENTONITE CHIPS	1AL		80		7.1
2	SP-SANDS (FILL), fine grained, poorly graded, trace medium sands, loose, light brown, moist							
	- oxidation staining at 3.2ft BGS			2AL		80		7.6
4	- rust brown at 4.5ft BGS							
	- medium brown at 4.8ft BGS							
6	- becoming black at 6.3ft BGS			3AL		80		231
	- sheeny, strong odor, black at 6.7ft BGS							
8	- some product, oily brown, strong odor at 8.9ft BGS	699.35		4AL		80		461
10	CI-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist	698.85						
	END OF BOREHOLE @ 9.5ft BGS							
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-111
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.47						
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist - wet at 2.0ft BGS		▽ 2" BOREHOLE	1AL		80		3.6
4	- becoming black, foundry sand, strong odor at 4.0ft BGS		BENTONITE CHIPS	2AL		80		16.2
6	- oily brown product, strong odor at 6.1ft BGS			3AL		80		>2000
8	CL-SILTY CLAYS (native), stiff, low plasticity, gray, moist	698.47		4AL		80		>2000
	END OF BOREHOLE @ 8.5ft BGS	696.97						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-112
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.59						
0	SW-SANDS (FILL), fine to medium sands, well graded, loose, dark brown, moist	704.79		1AL		80		--
2	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist - wet at 2.0ft BGS		▽ 2" BOREHOLE					
4	- black foundry sand at 4.1ft BGS - grayish black at 4.4ft BGS		BENTONITE CHIPS	2AL		80		--
6	- trace oily product, strong odor at 6.3ft BGS			3AL		70		--
	- trace oily product, strong odor at 6.9ft BGS	698.59						
8	CL-SILTY CLAYS (native), stiff, low plasticity, competent, gray, moist			4AL		70		--
	END OF BOREHOLE @ 9.0ft BGS	696.59						
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-113
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	704.92						
0	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist			1AL		75		--
2	- wet at 2.0ft BGS		▽ 2" BOREHOLE					
4	- becoming black, foundry sand at 3.5ft BGS		BENTONITE CHIPS	2AL		75		--
6	- trace oily product at 6.8ft BGS			3AL		75		--
8		697.92		4AL		75		--
	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist							
10	END OF BOREHOLE @ 9.0ft BGS	695.92						
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-114
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	701.96						
0	SP-SANDS (FILL), fine grained, trace medium sands, trace vegetation, poorly graded, trace clays, brown, very moist		2" BOREHOLE	1AL		85		1.1
4	CL-SILTY CLAYS (native), stiff, low plasticity, gray, moist	697.96	BENTONITE CHIPS	2AL		85		0.7
5	END OF BOREHOLE @ 5.0ft BGS	696.96						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-115
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	702.06						
0	SW-SANDS (topsoil), fine and medium grained, some vegetation, dark brown, wet	701.76						
2	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist		2" BOREHOLE	1AL		80		2.4
4			BENTONITE CHIPS	2AL		100		0.0
5	END OF BOREHOLE @ 5.0ft BGS	697.06						
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-116
DATE COMPLETED: August 26, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	702.92						
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, wet		2" BOREHOLE	1AL		80		--
2	- some rootlets at 0.4ft BGS							
	- becoming black, foundry sands at 1.0ft BGS							
	- sheeny, strong odor at 2.3ft BGS			2AL		100		--
	- trace oily product, brown at 2.9ft BGS	699.92						
4	CI-SILTY CLAYS (native), stiff, low plasticity, gray, moist	699.42	BENTONITE CHIPS					
6	END OF BOREHOLE @ 3.5ft BGS							
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-117
DATE COMPLETED: August 31, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	708.23						
0	SW-SANDS (topsoil), fine to medium d, trace vegetation, loose, dark brown, moist	707.63	2" BOREHOLE	1AL		80		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist			2AL		80		0.0
4			BENTONITE CHIPS	3AL		90		751
6	- gray at 5.8ft BGS - becoming black, wet, strong odor at 5.9ft BGS		▽	4AL		90		>2000
8	- becoming gray again, strong odor at 6.2ft BGS	700.53		5AL		90		13
10	CL-SILTY CLAYS (native), some silts, trace fine sands, competent, stiff, low plasticity, gray, moist	699.03						
	END OF BOREHOLE @ 9.2ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-118
DATE COMPLETED: August 31, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.85						
0	SW-SANDS (topsoil), fine ti medium sands, some vegetation, loose, dark brown, moist	706.15	2" BOREHOLE	1AL				0.4
2	SP-SANDS (FILL), fine grained, poorly graded, loose, trace oxidation staining, light brown, moist - trace silts at 2.2ft BGS			2AL				62.4
4	- wet, becoming black at 3.5ft BGS - brownish-gray at 4.2ft BGS		BENTONITE CHIPS	3AL				1.1
6	- dark gray, strong odor at 5.6ft BGS	701.15						
	CL-SILTY CLAYS (native), some silts, trace fine sands, competent, stiff, low plasticity, gray, moist	700.85						
8	END OF BOREHOLE @ 6.0ft BGS							
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-119
DATE COMPLETED: August 31, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	712.68						
0	SW-SANDS (topsoil), fine to medium grained, trace vegetation, well graded, loose, dark brown, moist	711.68		1AL		80		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, trace silts, loose, light brown, dry		2" BOREHOLE					
4			BENTONITE CHIPS	2AL		80		0.0
6				3AL		90		0.0
8				4AL		90		0.3
10	- 0.1" silty clay layer at 8.8ft BGS - oxidation staining at 9.0ft BGS - wet, becoming grayish-brown at 9.9ft BGS			5AL		95		64.2
12	- black, strong odor at 12.5ft BGS							
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	699.58		6AL		95		51.9
16	END OF BOREHOLE @ 15.0ft BGS	697.68						0.0
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 32' West of SB–18–19
DATE: December 9, 1996	Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
BORING NO.: SB–18–12	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Field equipment blank 1M prepared at 10:25 off inside of plastic sampling tube (0–4' interval) Duplicate 2 (2.2'–4.2') (Pb)
WEATHER: Sunny, 28°, Wind – West 10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb, PAH IPAH	0–2" Asphalt 2"–2' Silty sand, some gravel, dark yellowish brown (10YR 4/2).
2		8"	2.2'	Pb, PAH IPAH	2'–5' Silty sand, dark yellowish orange (10YR 6/6).
3		2.2'	4.2'	Dup Pb	
4		4.2'	6.2'	Pb, PAH IPAH	5'–6' Silty clay, same color, moist, slightly friable.
5		6.2'	8.2'	Pb, PAH IPAH	6'–7.5' Clayey silt, same color.
6		8.2'	10.2'	Pb, PAH IPAH	7.5'–8.5' Silty clay, same color. 8.5'–11' Sand, pale yellowish brown (10YR 6/2), very fine to fine.
7		10.2'	11.5'	Pb, PAH IPAH	11'–12' Sand, moderate yellowish brown, (10YR 5/4), medium–coarse, moist–wet.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

m:\480\02870266.wk3

Driller had to readvance probe 0'–4' BGS to allow us to obtain enough soil for sampling.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-120
DATE COMPLETED: August 31, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.07						
0	SW-SANDS (FILL), fine to medium grained, well graded, trace vegetation, dark brown, moist	713.97	2" BOREHOLE	1AL		75		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist		BENTONITE CHIPS	2AL		75		0.0
4				3AL		80		0.0
6				4AL		80		64.2
8	- 0.5" sandy and silty clay seam at 8.9ft BGS			5AL		95		742
10	- very moist to wet at 11.0ft BGS			6AL		95		>2000
12	- becoming black, strong odor at 12.0ft BGS			7AL		99		>2000
14	- trace oily product, light brown at 14.5ft BGS			8AL		99		0.0
16	- trace oily product, light brown at 16.3ft BGS	698.67						
18	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist							
20	END OF BOREHOLE @ 20.0ft BGS	695.07						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-121
DATE COMPLETED: August 31, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.98						
0	SW-SANDS (FILL), fine to medium grained, well graded, trace vegetation, dark brown, moist	713.68	2" BOREHOLE; BENTONITE CHIPS	1AL		70		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist							
4				2AL		70		0.0
6				3AL		90		0.0
8	- trace silts at 8.0ft BGS							
10	- oxidation staining at 9.5ft BGS			4AL		90		0.1
12	- wet at 12.0ft BGS							
14	- gray at 14.2ft BGS							
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	698.98						
18								
20	END OF BOREHOLE @ 20.0ft BGS	694.98						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-122
DATE COMPLETED: September 1, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.68						
0	SW-SANDS (FILL), fine to medium grained, trace vegetation, well graded, loose, dark brown, moist			1AL		75		0.0
2		712.48	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, trace medium sands, poorly graded, light brown, moist		BENTONITE CHIPS	2AL		75		0.0
4								
6				3AL		80		0.0
	- 0.3" sandy clay seam at 7.2ft BGS							
8	- becoming brownish gray at 7.6ft BGS			4AL		80		1.1
10	ML-SILTS, trace fine sands, competent, soft, medium plasticity, gray, moist	704.78						
		703.68		5AL		95		2.0
12	SP-SANDS, fine grained, poorly graded, dense, gray, wet							
	- wet at 11.5ft BGS			6AL		95		0.0
14								
		699.68						
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist			7AL		99		0.1
18								
				8AL		99		0.3
20	END OF BOREHOLE @ 20.0ft BGS	694.68						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-123
DATE COMPLETED: September 1, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.73						
2	SW-SANDS (FILL), fine to medium grained, trace fine and medium gravels, well graded, dense, dark brown, moist		2" BOREHOLE	1AL		75		0.1
		712.03						
4	SP-SANDS (FILL), fine grained, trace medium and coarse sands, poorly graded, dense, light brown, moist		BENTONITE CHIPS	2AL		75		18.5
6				3AL		95		111
8	- 0.5" silty clay seam, high plasticity, very moist at 8.1ft BGS			4AL		95		492
10	ML-SILTS, firm, low plasticity, competent, gray, moist	704.73	▽	5AL		95		>2000
12	- 0.3" fine grained sand seam, rust brown, wet at 11.1ft BGS	702.73		6AL		95		>2000
14	SP-SANDS, fine grained, poorly graded, dense, gray, wet - becoming black, sheeny, strong odor at 13.0ft BGS			7AL		95		1500
16	- trace oily liquid at 13.1ft BGS - trace oily liquid at 15.0ft BGS	699.63		8AL		95		1200
18	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist							
20	END OF BOREHOLE @ 20.0ft BGS	694.73						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-124
DATE COMPLETED: September 1, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.34						
0	SW-SANDS (FILL), fine to medium sands, well graded, sense, light brown, moist		2" BOREHOLE	1AL 0-2.5' -544		70		--
2	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist	712.64	BENTONITE CHIPS	2AL 2.5-5' -545		70		--
4								
6				3AL 5-7.5' -546		90		--
8				4AL 7.5-10' -547		90		--
10	SM-SILTY SANDS, trace fine and medium sands, semi-competent, trace clays, trace plasticity, brown, moist	704.34 703.94		5AL 10-12.5' -548		95		--
12	SP-SANDS, fine grained, poorly graded - wet at 11.0ft BGS - becoming blackish-gray, strong odor at 11.5ft BGS			6AL 12.5-15' -549		95		--
14								
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	699.34		7AL		100		--
18				8AL		100		--
20	END OF BOREHOLE @ 20.0ft BGS	694.34		20' -550				
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-125
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.14						
0	ASPHALT	714.84						
	SP-SANDS (FILL), fine grained, poorly graded, trace medium sands, dense, medium brown, moist		2" BOREHOLE	1AL		60		3.8
2								
			BENTONITE CHIPS	2AL		60		16.2
4								
6				3AL		80		>2000
	- becoming black at 6.9ft BGS - wet at 7.2ft BGS							
8	- debris-grass fragments, metal shavings at 7.6ft BGS - yellow staining at 7.7ft BGS	707.34		4AL		80		>2000
10	SW-SANDS (FILL), fine to coarse grained, well graded, trace fine gravels, dense, gray-black, wet	704.64		5AL		90		>2000
12	ML-SILTS, trace clays, stiff, low to medium plasticity, grayish-brown, moist	703.14						
	SP-SANDS, medium grained, poorly graded, dense, grayish-brown, wet			6AL		90		>2000
14								
	- trace oily residue, yellow at 15.0ft BGS	700.04						
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist			7AL		98		79.2
18								
				8AL		98		31.4
20	END OF BOREHOLE @ 20.0ft BGS	695.14						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

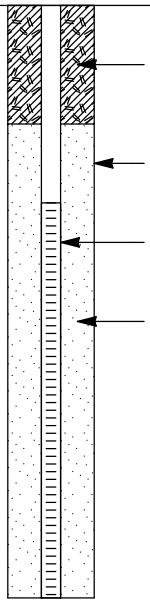
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-126/PZ18-126
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.07
0	ASPHALT	714.77
	SP-SANDS (FILL), fine grained, poorly graded, dense, light brown, moist	
2		
4		
6		
	- oxidation staining at 7.1ft BGS	707.87
8	SM-SILTY SANDS, trace clays, fine sands, medium plasticity, dark gray, moist to wet	706.77
	SP-SANDS, fine grained, poorly graded, dense, gray, wet	
10		
12		
	- strong petroleum odor at 13.4ft BGS	701.57
14	ML/CL-SILTS AND SILTY CLAYS, trace fine sands, soft, medium plasticity, gray, moist	700.57
	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.07
16	END OF BOREHOLE @ 15.0ft BGS	
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
710.07 to 700.07ft BGS
5.00 to 15.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.07 to 700.07ft BGS
3.00 to 15.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL				13.1
2AL				29.4
3AL				57
4AL				67.9
5AL				42.4
6AL				61.3
7AL				--
8AL				--

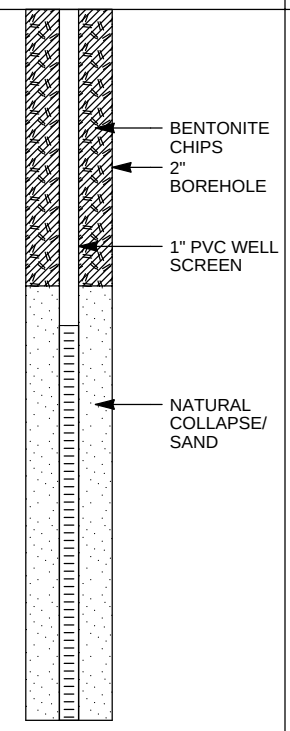
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-127/PZ18-127
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.12						
0	ASPHALT	714.82						
	SW-SANDS (FILL), fine to medium grained, well graded, dark brown, dense, moist			1AL				10.4
2								
4				2AL				16.1
6				3AL				89
	- debris (glass) at 7.1ft BGS	707.92						
8	SP-SANDS (FILL), fine grained, poorly graded, dense, dark brown			4AL				>2000
	- 0.2" silty sands at 8.1ft BGS							
	- 0.2" silty sands at 8.5ft BGS							
10				5AL				>2000
12	- oxidation staining at 12.5ft BGS							
14	- becoming black, strong odor at 14.0ft BGS			6AL				>2000
	- becoming gray at 15.1ft BGS							
16	- black, strong odor at 16.5ft BGS			7AL				>2000
	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	697.92						
18				8AL				29.1
20	END OF BOREHOLE @ 20.0ft BGS	695.12						
22								
24								
26								
28								
30								
32								
34								



WELL DETAILS
Screened interval:
707.12 to 697.12ft BGS
8.00 to 18.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.12 to 697.12ft BGS
7.00 to 18.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

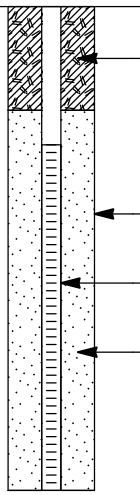
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-128/PZ18-128
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.12
0	ASPHALT	714.82
2	SW-SANDS (FILL), fine to medium sands, trace fine gravels, well graded, dense, dark brown, moist	
4		
6		
7.5	- debris (glass) at 7.5ft BGS	707.92
8	SP-SANDS, fine grained, trace medium sands, poorly graded, dense, dark brown, moist	
10	SM-SILTY SANDS, with clays, trace fine and medium sands, semi-competent, medium plasticity, soft, brown, moist, strong odor	705.32
12	SP-SANDS (FILL), fine grained, poorly graded, dense, black, wet, strong odor	703.12
12.5	- becoming gray at 12.5ft BGS	701.92
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.12
15	END OF BOREHOLE @ 15.0ft BGS	
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		
36		
38		



WELL DETAILS
Screened interval:
711.12 to 701.12ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.12 to 701.12ft BGS
3.00 to 14.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL				10.1
2AL				36.4
3AL				42.1
4AL				54
5AL				>2000
6AL				>2000
7AL				36.9
8AL				21.1

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-129
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.79						
0	SW-SANDS (FILL), fine to medium grained, well graded, dense, dark brown, moist			1AL		60		--
2	SP-SANDS (FILL), fine grained, poorly graded, dense, brown, moist	712.09	2" BOREHOLE					
4			BENTONITE CHIPS	2AL		60		--
6	- becoming grayish-brown at 6.0ft BGS			3AL		80		--
8				4AL		80		--
10	- moist to wet at 10.0ft BGS - gray at 10.3ft BGS		▽	5AL		95		--
12				6AL		95		--
14				7AL		90		--
16				8AL		90		--
18		694.79						
20	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist END OF BOREHOLE @ 20.0ft BGS	693.79						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser-Frazer Dump Area PAOC 18 38' West of SB-18-19
DATE: December 9, 1996	Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
BORING NO.: SB-18-13	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Sunny, 30o, Wind - West 10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb, PAH IPAH	0-2" Asphalt 2"-2' Silty sand, some gravel, dark yellowish brown (10YR 4/2).
2		8"	2.2'	Pb, PAH IPAH	2'-5' Silty sand, dark yellowish orange (10YR 6/6).
3		2.2'	4.2'	Pb, PAH IPAH	
4		4.2'	6.2'	Pb, PAH IPAH	5'-6' Silty clay, same color, moist, slightly friable.
5		6.2'	8.2'	Pb, PAH IPAH	6'-7.5' Clayey silt, same color.
6		8.2'	10.2'	Pb, PAH IPAH	7.5'-8.5' Silty clay, same color. 8.5'-11' Sand, pale yellowish brown (10YR 6/2), very fine to fine.
7		10.2'	11.5'	Pb, PAH IPAH	11'-12' Sand, moderate yellowish brown, (10YR 5/4), medium-coarse, moist-wet.
					End of boring = 12' BGS

REMARKS

Pb - lead

PAH - polynuclear aromatic hydrocarbons

IPAH - PAH sample collected for immunoassay

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-134
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.09						
0	CL-SILTY CLAYS (FILL), trace fine to medium sands, firm, low plasticity, brown, moist, trace rootlets	699.34	2" BOREHOLE	1AL 0-2.5' -589		90		10.6
2	- gray at 0.3ft BGS`			2AL 2.5-5' -590		90		25.9
4	CL-SANDY CLAYS WITH SILTS (FILL), firm, low plasticity, fine sands, gray and black, moist to very moist, slight petroleum-like odor	696.09	BENTONITE CHIPS	3AL		90		3.1
6	- increase in sand content, decrease in clay content, very moist, brown and gray at 2.8ft BGS	694.09						
	CH-SILTY CLAYS (native), firm, high plasticity, gray, moist							
8	END OF BOREHOLE @ 6.0ft BGS							
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-135
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	709.91						
0	CL-SILTY CLAYS (FILL), trace fine to medium sands, firm, low plasticity, dark brown, moist, trace vegetation	708.66	2" BOREHOLE	1AL 0-2.5' -591		100		0.8
2	SM-SILTY SANDS, compact, fine to medium grained, poorly graded, orange-brown, moist							
	- tan/beige, some orange streaking at 1.8ft BGS							
4	- fine grained, brown, some orange streaking at 2.5ft BGS	705.66	BENTONITE CHIPS	2AL 2.5-5' -592		90		0.2
	- brown-orange at 3.8ft BGS							
6	SM/ML-SANDS & SILTS (FILL), trace clays, compact, fine sands, nonplastic, brown,	702.91		3AL 5-7.5' -593		100		0.3
	brown-gray, some orange streaking, moist,	702.66						
8	trace clay nodules up to 1"	701.91						
	- brown-gray, some orange streaking at 5.0ft BGS	701.16		4AL 7.5-10' -594		100		0.5
10	- brown-orange, saturated at 6.0ft BGS	699.91						
	CL-SILTY CLAYS, firm, low plasticity, gray, moist							
12	SM-SILTY SANDS (native), compact, fine grained, poorly graded, light gray, saturated							
	CL-SILTY CLAYS, firm, low plasticity, gray, moist							
14	SM-SILTY SANDS, compact, fine grained, poorly graded, light gray, saturated							
	END OF BOREHOLE @ 10.0ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-136
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.66						
0	CL-SILTY CLAYS (FILL), trace fine to medium sands, firm, low plasticity, dark brown, moist, trace vegetation							
2	- tan/beige, fine grained at 2.0ft BGS	711.91	2" BOREHOLE	1AL 0-2.5' -595		75		4.8
	SM-SILTY SANDS, compact, fine to medium grained, poorly graded, orange-brown, moist		BENTONITE CHIPS	2AL 2.5-5' -596		75		6.2
4								
6	- light brown and orange-brown at 5.5ft BGS			3AL 5-7.5' -597		90		4.5
8	SM/ML-SANDS & SILTS, compact, fine sands, nonplastic, brown and gray, moist	706.16		4AL 7.5-10' -598		90		4.1
10	- trace to with clays, gray, very moist, non to low plasticity at 9.0ft BGS	702.91						
	CL-SILTY CLAYS, trace fine to coarse sands, stiff, low plasticity, gray, moist	701.91		5AL 10-12.5' -599		90		4.6
12	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated							
14				6AL 12.5-15' -600		90		5.1
16				7AL 15-17.5' -601		90		4.1
18	CL/CI-SILTY CLAYS, trace fine to coarse sands, stiff, low to medium plasticity, gray, moist	695.41		8AL 17.5-20' -602		90		3.9
20	END OF BOREHOLE @ 20.0ft BGS	693.66						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-137
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.40						
0	SM-SILTY SANDS, trace clays, loose to compact, fine to medium grained, poorly graded, dark brown, moist, trace rootlets							
2	- very moist to saturated at 1.5ft BGS		2" BOREHOLE	1AL 0-2' -603		75		8.7
	- saturated at 2.0ft BGS			2AL 2-4' -604		100		40.6
	- trace to with clays, brown at 2.3ft BGS							
4	- increase in clay content, dark gray to black, slight petroleum-like odor at 3.0ft BGS		BENTONITE CHIPS					
		695.65		3AL 4-6' -605		100		4.6
6	CL/CI-SILTY CLAYS, trace fine to medium sands, firm to stiff, low to medium plasticity, gray, moist	694.40						
	END OF BOREHOLE @ 6.0ft BGS							
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-138
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	702.95						
0	CL-SANDY CLAYS, trace silts, firm, low plasticity, medium brown, moist, trace rootlets	701.95		1AL 0-2.5' -606				72.5
2	CI/CH-SANDY CLAYS, trace fine sands, stiff, medium to high plasticity, gray, moist - firm, slight petroleum-like odor at 2.0ft BGS - stiff, no odor at 3.0ft BGS		2" BOREHOLE					
4			BENTONITE CHIPS	2AL 2.5-5' -607				8.3
6	END OF BOREHOLE @ 6.0ft BGS	696.95		3AL				0.2
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-139
DATE COMPLETED: September 9, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.56						
0	SM-SILTY SANDS, trace clays, loose to compact, fine to coarse grained, poorly graded, dark brown, moist							
2	- brown, some orange streaking at 0.3ft BGS		2" BOREHOLE	1AL 0-2.5' -608		100		8.1
	- fine to medium grained, brown and orange-brown at 1.5ft BGS							
4	- green-gray and orange-brown at 3.0ft BGS		BENTONITE CHIPS	2AL 2.5-5' -609		90		27.4
	- black, very moist, slight petroleum-like odor at 3.8ft BGS	701.31						
6	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist, slight petroleum-like odor			3AL 5-8' -610		90		19.4
8	END OF BOREHOLE @ 8.0ft BGS	698.56						
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 1' north of fence and 156' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 12, 1996	
BORING NO.: SB–18–14	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Overcast, 37°, Wind – NE 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0'–2' Silty sand, dusky brown, and debris (metal, glass, bricks).
2		6"	2'	Pb	2'–7' Silty sand, moderate yellowish brown – grayish orange, and metal debris.
3		2'	4'	Pb, PAH	
4		4'	6'	Pb	
5		6'	8'	Pb	7'–8' Sandy silt, grayish orange.
6		8'	10.5'	Pb	8'–11' Silty sand, dark yellowish orange – grayish orange. 11'–12' Sand, grayish orange – dark yellowish orange, very fine – fine. End of boring = 12' BGS.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Attempted boring at approximately 1' north of this boring. Driller advanced probe 0–4' BGS with approx. 50% recovery and 4'–8' BGS with approx. 20% recovery. Second boring attempted, resulted in approx. ____% recovery. Apparent fill material.

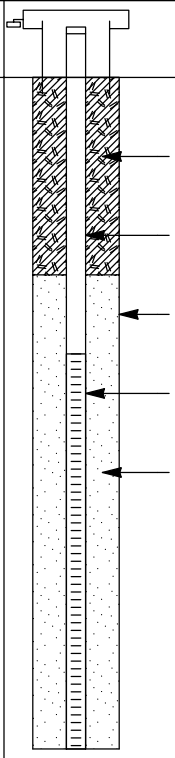
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-140/PZ18-140
DATE COMPLETED: September 10, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	713.91
0	SM-SILTY SANDS, compact, fine to medium grained, poorly graded, brown, moist, some yellow streaking	
4	- tan/beige, fine grained at 4.0ft BGS	
6		707.41
8	SM/ML-SANDS AND SILTS, compact to dense, fine sands, non plastic, light brown and orange brown, moist	
10		704.91
12	SM-SILTY SANDS, dense, fine grained, poorly graded, light brown and gray brown, moist - very moist to saturated, gray and orange banded at 12.0ft BGS - black and dark gray, saturated, petroleum-like odor (moderate) at 12.5ft BGS	
16	- strong petroleum-like odor, DNAPL-dark brown at 15.8ft BGS	697.91
18	CL/CI-SILTY CLAYS, trace fine sands, firm, low to medium plasticity, gray, moist, moderate petroleum-like odor	
20	END OF BOREHOLE @ 20.0ft BGS	693.91
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
706.91 to 696.91ft BGS
7.00 to 17.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
708.91 to 696.91ft BGS
5.00 to 17.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		75		7.3
2AL		75		7
3AL		90		6.8
4AL		90		13.5
5AL		90		336
6AL		90		356
7AL		90		65.8
8AL 17.5-20 -611		90		17.4

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-142
DATE COMPLETED: September 10, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.55						
0	SM-SILTY SANDS, compact, fine to coarse grained, poorly graded, dark brown, moist							
2	- brown, some orange streaking at 0.8ft BGS		2" BOREHOLE	1AL				7.2
4	- medium brown at 4.3ft BGS		BENTONITE CHIPS					
6								
8	- increase in silt content, brown and orange-brown at 7.8ft BGS			2AL				14.6
10								
12	- light brown, fine grained at 12.0ft BGS - brown at 12.8ft BGS			3AL				116
14	- very moist to saturated, dark gray, slight petroleum-like odor at 13.5ft BGS - black, saturated, moderate petroleum-like odor at 14.0ft BGS							
16	- dark gray to black at 14.5ft BGS			4AL				334
18	- DNAPL-dark brown at 17.7ft BGS	696.80						
	CL/CI-SILTY CLAYS, trace fine sands, firm, low to medium plasticity, gray, moist, moderate petroleum-like odor	695.55						
20	END OF BOREHOLE @ 19.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-143
DATE COMPLETED: September 10, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.91						
0	SM-SILTY SANDS, compact, fine to coarse grained, poorly graded, brown, moist, some orange streaking		2" BOREHOLE	1AL		75		4.8
2	- light brown, fine to medium grained at 3.0ft BGS		BENTONITE CHIPS	2AL		78		7.4
4				3AL		85		9.8
6				4AL		85		674
8	- increase in silt content, fine grained, brown, orange and brown at 8.3ft BGS			5AL		85		1901
10				6AL		85		>2000
12	- brown-gray, decrease in silt content, very moist at 12.5ft BGS			7AL		75		1890
14	- increase in silt content, gray, saturated at 13.3ft BGS			8AL		75		1535
16	- dark gray to black, slight sheen to water/soil, moderate petroleum-like odor at 13.5ft BGS							
18	- DNAPL-dark brown at 18.5ft BGS	696.41						
20	CL/CI-SILTY CLAYS, trace fine sands, firm, low to medium plasticity, gray, moist, moderate petroleum-like odor	694.91						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-144
DATE COMPLETED: September 10, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SM-SILTY SANDS, compact, fine to coarse grained, poorly graded, brown, moist, some orange streaking		2" BOREHOLE	1AL 0-2.5' -612				9.8
			BENTONITE CHIPS	2AL 2.5-5' -613				5.2
	- light brown at 4.3ft BGS			3AL 5-7.5' -614				18.9
	- increase in silt content, orange brown and brown at 9.0ft BGS			4AL 7.5-10' -615				37.4
	- light gray, very moist to saturated at 12.5ft BGS			5AL 10-12.5' -616				43.9
	- gray, saturated, slight petroleum-like odor at 13.0ft BGS			6AL 12.5-15' -617				18
	- dark gray to black, moderate petroleum-like odor at 14.5ft BGS	15.00						
	CL/CI-SILTY CLAYS, trace fine sands, firm, low to medium plasticity, gray, moist, moderate petroleum-like odor			7AL 15-17.5' -624				3.6
				8AL 17.5-20' -625				2.9
	END OF BOREHOLE @ 20.0ft BGS	20.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-145
DATE COMPLETED: October 4, 2004
DRILLING METHOD: HAND SAMPLING
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.67						
0	SW-SANDS (topsoil), fine and medium grained, some rootlets, loose, dark brown, moist	699.37	2" BOREHOLE	1AL		60		0.0
2	SM-SILTY SANDS, fine and medium sands, trace silty clays, dense, brown-gray, moist to wet	697.37	BACKFILLED WITH BENTONITE CHIPS	2AL		80		0.0
4	- trace oxidation staining at 2.0ft BGS							
	CL-SILTY CLAYS, trace fine sands, stiff, competent, low plasticity, gray, moist	694.67						
6	END OF BOREHOLE @ 5.0ft BGS							
8								
10								
12								
14								
16								
18								
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24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-146
DATE COMPLETED: October 4, 2004
DRILLING METHOD: HAND SAMPLING
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.07						
0	SW-SANDS (topsoil), fine and medium grained, some rootlets, loose, dark brown, moist	699.87	2" BOREHOLE	1AL		65		0.0
2	CL-SILTY CLAYS, trace fine sands, stiff, competent, low plasticity, gray, moist		BACKFILLED WITH BENTONITE CHIPS	2AL		85		0.0
4	END OF BOREHOLE @ 4.6ft BGS	695.47						
6								
8								
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-147
DATE COMPLETED: October 4, 2004
DRILLING METHOD: HAND SAMPLING
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.63						
0	SW-SANDS (topsoil), fine to medium grained, well graded, dark brown, moist to wet	699.13	2" BOREHOLE	1AL		70		0.0
2	CL-SILTY CLAYS, trace fine sands, competent, stiff, low plasticity, gray, dry		BACKFILLED WITH BENTONITE CHIPS	2AL		75		0.0
4								
5	END OF BOREHOLE @ 5.0ft BGS	694.63						
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-148
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	701.02						
0	SW-SANDS (topsoil), fine to medium grained, well graded, trace rootlets, dark brown, moist	700.72	2" BOREHOLE	1AL		75		0.0
2	SW/SM-SILTY SANDS, compact, fine to medium grained, poorly graded, brown, moist to wet	698.52	BACKFILLED WITH BENTONITE CHIPS	2AL		80		0.0
4	- trace black sands, trace sheen at 2.4ft BGS							
	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	696.02						
6	END OF BOREHOLE @ 5.0ft BGS							
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-149
DATE COMPLETED: October 4, 2004
DRILLING METHOD: HAND SAMPLING
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.34						
0	SW-SANDS, fine to coarse sands, trace vegetation, well graded, loose, light brown, moist	702.14	2" BOREHOLE	1AL		70		3.1
2	SP-SANDS, medium grained, trace fine sands, poorly graded, loose, gray, wet - trace sheen, slight odor at 2.5ft BGS - black foundry type sands at 2.7ft BGS	700.34	BACKFILLED WITH BENTONITE CHIPS	2AL		90		26.1
4								
6	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist			3AL		100		3.1
	END OF BOREHOLE @ 6.0ft BGS	697.34						
8								
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12								
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18								
20								
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24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 10, 1996

BORING NO.: SB-18-15

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Mostly cloudy, 40₀, Wind - West <5 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 16' north of fence and 139' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 10' BGS

COMMENTS: 15:10 Prepared field equipment blank #1T off inside of plastic sampling tube (4'-8' interval) (Pb and PAH analysis)

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0-5' Silty sand to clayey sand, some gravel, dark yellowish brown (10YR 4/2); brick, metal, glass and paint fragments (solidified).
2		6"	2'	Pb	
3		2'	4'	Pb	
4		4'	6'	Pb	5'-7' Silty sand, dark yellowish orange (10YR 6/6).
5		6'	8'	Pb	7'-8' Metal, glass, paint chips, paint (solidified) fragments; some sand, moderate brown (5YR 4/4).
6		8'	10'	Pb	8'-10' Same lithology as SB-18-15 (8.5'-10'). 10'-12' Silty sand, pale yellowish brown (10YR 5/4) - dark yellowish orange (10YR 6/6)
					End of boring = 12' BGS.

REMARKS

Pb - lead

PAH - polynuclear aromatic hydrocarbons

IPAH - PAH sample collected for immunoassay

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-150
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.27						
0	SP-SANDS, fine grained, trace fine gravels, trace rootlets, poorly graded, loose, light brown, dry		2" BOREHOLE	1AL		60		3.3
2			BACKFILLED WITH BENTONITE CHIPS					
4				2AL		75		18.2
	- 0.3' layer black foundry type sand, sheeny at 4.4ft BGS	701.57						
6	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist			3AL		75		1.1
	END OF BOREHOLE @ 7.0ft BGS	699.27						
8								
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28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-151
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.71						
0	SW-SANDS, fine to medium grained, trace rootlets, well graded, dark brown, moist							
	- root at 1.0ft BGS	704.51		1AL				16.1
2	SP-SANDS (FILL), fine grained, poorly graded, dense, brown, moist		2" BOREHOLE					
	- 0.5' layer rust color at 2.0ft BGS		BACKFILLED WITH BENTONITE CHIPS	2AL				64.2
4	- wet at 4.0ft BGS		▽					
	- 1' layer black foundry type sand, sheeny, moderate odor at 5.0ft BGS			3AL				60.0
6	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	699.71						
8	END OF BOREHOLE @ 8.0ft BGS	697.71						
10								
12								
14								
16								
18								
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24								
26								
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30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-152
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	SW-SANDS, fine to medium grained, trace silts, trace rootlets, loose, dark brown, moist		2" BOREHOLE				
2	SP-SANDS, fine grained, poorly graded, loose, light brown, moist	1.30	BACKFILLED WITH BENTONITE CHIPS	1AL		60	
4	- trace iron banding at 4.1ft BGS						
6							
8	- 0.1' silty sand seam at 7.2ft BGS			2AL		90	
10	SP-SANDS, medium grained, poorly graded, dense, medium brown, moist - very moist at 10.0ft BGS	8.90					
12	SM-SILTY SANDS, trace fine sands, dense, gray, wet - grading to finer sands at 12.9ft BGS	11.00		3AL		90	
14							
16	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	15.00		4AL		100	
18							
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-153
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SW-SANDS (FILL), fine to medium sands, trace gravels, well graded, trace silts, medium brown, moist		2" BOREHOLE					
2			BACKFILLED WITH BENTONITE CHIPS	1AL		60		1.2
4								
6								
8	- dense at 7.0ft BGS - trace oxidation staining at 8.0ft BGS			2AL		80		6.8
10	- debris (rivets, steel plates), strong odors at 9.0ft BGS - increase in moisture content at 10.0ft BGS							
12	SM-SILTY SANDS, trace fine sands, homogeneous, dense, gray, moist	11.00						
	- black foundry type sands, sheeny at 12.6ft BGS	12.50	▽	3AL		85		72.3
14	SP-SANDS, fine grained, poorly graded, dense, brown, saturated - black foundry type sands, sheeny at 14.5ft BGS							
16								
	- sheeny at 16.9ft BGS	17.00		4AL		85		13
18	CL-SILTY CLAYS, trace fine sands, stiff, competent, low plasticity, gray, moist							
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-154
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SW-SANDS (FILL), fine to medium grained, trace fine gravels, well graded, trace silts, medium brown, moist		2" BOREHOLE					
2			BACKFILLED WITH BENTONITE CHIPS	1AL		60		7.2
4								
6								
8	- trace coarse sands at 8.1ft BGS			2AL		85		8.9
10	- trace oxidation staining at 9.5ft BGS - becoming gray, increase in silts at 10.0ft BGS							
12	SM-SILTY SANDS, some fine sands, homogeneous, compact, gray, very moist - trace black sands at 13.0ft BGS - 0.2' silty clay seam at 13.3ft BGS	11.50		3AL		100		13.2
14								
16	CL-SILTY CLAYS, trace fine sands, competent, stiff, low plasticity, gray, moist	15.00		4AL		100		3.4
18								
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-155
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.12						
0	ASPHALT (parking lot)	713.72	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, trace medium grained, poorly graded, loose, medium brown, moist - trace medium gravels at 2.1ft BGS		BACKFILLED WITH BENTONITE CHIPS	1AL		70		2.1
4								
6	SM-SILTY SANDS, trace clays, some fine sands, trace plasticity, dense, brownish gray, moist	708.92						
8	- moist to wet at 7.0ft BGS - 0.2' silty clay seam at 8.3ft BGS			2AL		75		3.0
10								
12	- wet at 12.5ft BGS		▽	3AL		85		4.0
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.12						
16								
18				4AL		85		1.2
20	END OF BOREHOLE @ 20.0ft BGS	694.12						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-156
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.73						
0	ASPHALT	713.23	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, homogeneous, medium brown, moist			1AL		70		0.0
2								
4								
	- trace silts at 5.5ft BGS							
6	SM/SC-SILTY SANDS, some fine sands, trace silty clays, trace plasticity, dense, brown, very moist	707.73						
				2AL		80		0.0
8	- becoming gray, decrease in moisture, semi-competent at 8.0ft BGS							
	- becoming darker gray, low plasticity at 9.5ft BGS							
10								
	SP-SANDS, fine grained, poorly graded, trace silts, intermittent oxidation banding, dense, brown gray, moist to wet	702.73						
12	- wet at 12.5ft BGS			3AL		95		0.0
	SM-SILTY SANDS, some fine sands, poorly graded, dense, gray, wet	699.83						
14		698.73						
	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist							
16								
				4AL		100		0.0
18								
20	END OF BOREHOLE @ 20.0ft BGS	693.73						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-157
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.05						
0	ASPHALT	713.55	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		75		1.1
6	- some silts at 5.9ft BGS	708.05						
	SM/SC-SILTY AND SANDY CLAYS, some fine sands, trace plasticity, dense, brown-gray, moist			2AL		85		0.0
	- becoming gray at 7.5ft BGS							
	- 0.2 fine sand seam, gray, moist at 8.1ft BGS							
	- 0.2 fine sand seam, gray, moist at 9.2ft BGS							
12	SP-SANDS (native), fine grained, trace silts, poorly graded, intermittent oxidation banding, dense, brown-gray, wet	703.05		3AL		95		0.0
	- wet at 12.5ft BGS							
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	699.55 699.05						
16	END OF BOREHOLE @ 15.0ft BGS			4AL		95		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-158
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.07						
0	ASPHALT	713.57	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, medium brown, moist			1AL		60		0.0
6		707.77						
	SM/SC-SILTY AND SANDY CLAYS (FILL), some fine and medium sands, trace plasticity, dense, brown-gray, moist - 0.2' fine grained sands at 8.0ft BGS			2AL		75		0.0
10	- 0.1' trace silty sand seam at 9.9ft BGS	703.57						
	SP-SANDS, fine grained, poorly graded, dense, brown, moist - wet at 11.0ft BGS - oxidation staining at 11.1ft BGS - oxidation staining at 13.2ft BGS - oxidation staining at 14.0ft BGS - becoming gray at 14.1ft BGS			3AL		90		0.1
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	698.97		4AL		95		0.0
20	END OF BOREHOLE @ 20.0ft BGS	694.07						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-159
DATE COMPLETED: October 4, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.83						
0	ASPHALT	714.33	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist			1AL		60		0.0
8	SM/SC-SILTY AND SANDY CLAYS (FILL), some fine and medium sands, trace plasticity, dense, brown-gray, moist	707.63		2AL		80		0.0
12	SP-SANDS, fine grained, poorly graded, dense, intermittent oxidation banding, brown-gray, wet - wet at 11.5ft BGS	703.83		3AL		90		0.0
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	699.33		4AL		95		0.0
20	END OF BOREHOLE @ 20.0ft BGS	694.83						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 50' north of fence and 160' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 11, 1996	
BORING NO.: SB–18–16	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 5.5' BGS
DRILL TYPE: Hand Auger	COMMENTS: 12:30 Prepared field equipment blank #2W off inside of hand auger prior to boring (0–4') Pb and PAH analysis.
WEATHER: Overcast, 36°, Wind – NE 10–15 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0'–5.5' Clayey sand/sandy clay, moderate–dark yellowish brown, some roots, rock fragments, and black solidified material as noted below.
2		6"	2'	Pb, PAH Dup Pb	
3		2'	4'	Pb	
4		4'	5.5'	Pb	5.5'–6' Organic clay, black, hydrocarbon odors.
5					End of boring = 6.0' BGS
6					
7					

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Black solidified layer at 16"–18", 23"–24", 26"–27" BGS, creosote–like odors.
Duplicate 4W (6"–2') (Pb)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-160
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.47						
0	ASPHALT	713.97	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		10.0
8	SM/ML-SANDS AND SILTS (FILL), trace clays, compact, fine sands, trace oxidation, trace plasticity, brown-gray, moist - orange-rust color at 8.0ft BGS - becoming gray at 9.0ft BGS	706.97		2AL		75		8.1
12	- wet at 12.0ft BGS			3AL		80		2.1
14	SP-SANDS, fine grained, poorly graded, trace oxidation staining, brown-gray, wet	701.47						
16	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	699.97						
	END OF BOREHOLE @ 15.0ft BGS	699.47						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-161
DATE COMPLETED:
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.51						
0	ASPHALT	714.01	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		1.2
8	SM/ML-SANDS AND SILTS (FILL), trace clays, dense, fine sands, trace oxidation, trace plasticity, brown-gray, moist	707.01		2AL		75		3.3
10	- 0.1' clay seam at 10.1ft BGS							
12	- wet at 12.0ft BGS - increase in sand content at 12.5ft BGS			3AL		95		3.3
14	SP-SANDS (native), fine grained, poorly graded, oxidation staining, dense, brown, gray	701.51						
15	END OF BOREHOLE @ 15.0ft BGS	699.51						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-162
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	715.10					
0	ASPHALT	714.60	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS				
	SP-SANDS (FILL), fine grained, poorly graded, compact, medium brown, moist			1AL		60	
8	SM-SILTY SANDS (FILL), some fine sands, trace clays, compact, brown, moist	707.10		2AL		85	
	SP-SANDS, fine grained, poorly graded, trace silts, compact, brown, moist	706.10					
12	- wet, becoming gray at 12.0ft BGS - trace black sands at 13.0ft BGS - 0.3' seam silty sands at 13.5ft BGS			3AL		95	
15	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.30					
	END OF BOREHOLE @ 15.0ft BGS	700.10					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-163
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.61						
0	ASPHALT	714.11	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, compact, medium brown, moist			1AL		60		16.1
8	SM-SILTY SANDS (FILL), some fine sands, trace clays, compact, brown, moist	707.41		2AL		90		11
10	SP-SANDS, fine grained, poorly graded, dense, brown-gray, moist - 0.3' seam silty sands, wet at 11.0ft BGS - 0.2' seam silty clays at 13.0ft BGS	704.31		3AL		95		11.0
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	700.11						
16	END OF BOREHOLE @ 15.0ft BGS	699.61						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-164
DATE COMPLETED: October 5, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.73						
0	ASPHALT (parking lot)	714.23	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
2	SP-SANDS (FILL), fine grained, poorly graded, dense, trace concrete materials, medium brown, moist - 0.7' seam dark brown at 1.2ft BGS - trace asphalt material at 2.0ft BGS			1AL		70		2.4
4								
6	- trace silts at 5.0ft BGS							
8	- increase in silts at 7.5ft BGS	706.73		2AL		90		4.6
10	ML-SILTS, trace fine sands, stiff, trace plasticity, gray, competent, moist	705.23						
12	SP-SANDS, medium grained, trace fine grained, poorly graded, dense, brown, moist	703.73		3AL		95		3.1
14	SM-SILTY SANDS, trace fine sands, compact, brown, wet	701.73						
16	SP-SANDS, medium grained, poorly graded, compact, brown, wet	699.73		4AL		95		2.0
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist							
20	END OF BOREHOLE @ 20.0ft BGS	694.73						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-165
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.40						
0	ASPHALT (parking lot)	714.90	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, poorly graded, loose, trace intermittent oxidation staining, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		75		2.2
4	- trace fine gravels at 4.0ft BGS							
6								
8	SM-SILTY SANDS, some fine sands, trace clays, compact, gray, moist	708.40		2AL		80		3.3
10	END OF BOREHOLE @ 10.0ft BGS	705.40						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-166
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	715.02					
0	ASPHALT	714.52	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS				
	SP-SANDS (FILL), fine grained, poorly graded, medium brown, dense, moist			1AL		70	
8	SM/SC-SILTY SANDS, with sandy clays, some medium sands, compact, trace plasticity, brown, moist	707.02		2AL		85	
10	SP-SANDS, fine grained, trace medium sands, poorly graded, trace oxidation banding, brown, moist	705.12					
12	- wet at 12.0ft BGS			3AL		60	
15	END OF BOREHOLE @ 15.0ft BGS	700.02					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-167
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.08						
	ASPHALT (parking lot)	714.58	2" BOREHOLE					
2	SW-SANDS (FILL), some fine gravels, some concrete material, fine to medium grained, well graded, loose, brown, moist			1AL		50		39.2
	- rubber material, trace refuse at 1.0ft BGS							
	- becoming black at 3.0ft BGS							
4	- strong odor, black at 4.0ft BGS							
	- trace debris, fibers, trace shavings at 4.3ft BGS	710.08	BACKFILLED WITH BENTONITE CHIPS					
6	SP-SANDS (FILL), fine grained, poorly graded, trace oxidation staining, dense, brown, moist							
8				2AL		70		16.1
10								
12	- wet at 12.0ft BGS			3AL		85		9.0
	- 0.5' silty sand seam at 13.1ft BGS							
14	- 0.4' silty sand seam at 14.0ft BGS							
	END OF BOREHOLE @ 15.0ft BGS	700.08						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-168
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.97						
0	ASPHALT	714.47	2" BOREHOLE					
2	SW/GW-SANDY GRAVELS (FILL), with debris, cardboard material, solidified sludges, purple-gray staining, loose, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		92.1
4		710.47						
6	SP-SANDS (FILL), fine grained, poorly graded, trace silts, oxidation banding, dense, brown, moist - olive-gray at 5.0ft BGS - oxidation banding at 7.0ft BGS							
8				2AL		90		13.7
10								
12	- moist to wet at 12.5ft BGS			3AL		90		4.7
		701.97						
14	SP/SM-SILTY SANDS, some fine sands, poorly graded, dense, brown, wet							
		699.97						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-169
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.04						
0	ASPHALT	714.54	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, trace silts, poorly graded, loose, brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		70		2.2
8	SM-SILTY SANDS, some fine sands, poorly graded, trace clays, brown, moist	707.74		2AL		90		4.6
10	END OF BOREHOLE @ 10.0ft BGS	705.04						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 34' north of fence and 190' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 11, 1996	
BORING NO.: SB–18–17	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 3' BGS
DRILL TYPE: Hand Auger	COMMENTS:
WEATHER: Overcast, 35°, Wind – NE 10–15 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0'–2' Clayey sand/sandy clay, some roots and rock fragments, dusky yellowish brown.
2		6"	2'	Pb	2'–3' Clayey sand, moderate–dark yellowish orange, some rock and shell fragments.
3		2'	3'	Pb	3'–4' Organic clay, olive gray.
4					End of boring = 4' BGS.
5					
6					
7					

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-170
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.08						
0	ASPHALT	714.58	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist			1AL		70		0.0
8	SM-SILTY SANDS (FILL), some fine sands, trace medium sands, compact, trace clays, trace plasticity, brown, moist	707.58		2AL		80		0.0
12	SP-SANDS, fine grained, poorly graded, trace medium sands, brown, wet - wet at 12.5ft BGS	704.08		3AL		85		0.0
15	END OF BOREHOLE @ 15.0ft BGS	700.08						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-171
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.96						
0	ASPHALT	714.46	2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS					
	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist - trace asphalt material at 1.0ft BGS			1AL		60		0.0
10	SM-SILTY SANDS (FILL), trace silty clays, compact, trace plasticity, brown, moist	705.46		2AL		80		0.0
		701.46		3AL		90		1.1
	SP-SANDS, fine grained, poorly graded, dense, intermittent oxidation staining, brown, moist	699.96						
	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist			4AL		95		2.2
20	END OF BOREHOLE @ 20.0ft BGS	694.96						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-172
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.18						
0	ASPHALT	714.68	2" BOREHOLE					
2	SW/GW-GRAVELLY SANDS (FILL), some concrete material, glass, metal shavings, landfill material, black solids, strong odors, black, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		65		--
4	- trace debris, glass, paper products at 2.0ft BGS							
	- decrease in debris at 3.0ft BGS	710.68						
6	SP-SANDS, fine grained, poorly graded, dense, brown, moist							
8				2AL		85		--
	- trace silts at 9.2ft BGS							
10	END OF BOREHOLE @ 10.0ft BGS	705.18						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-173
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.99						
0	ASPHALT	714.49	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		1.1
4	- trace medium sands at 4.0ft BGS							
6								
8	- 1.0' seam silty sands, trace silty clays, olive-gray, trace black sands, fine grained at 8.0ft BGS			2AL		75		2.2
10	- oxidation banding at 9.5ft BGS	704.99						
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-174
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.62						
0	ASPHALT	714.12	2" BOREHOLE					
	SW/GW-GRAVELLY SANDS (FILL), some debris, fine to medium sands, well graded, paint sludge, cardboard products, metal shavings, black sludge, trace purple staining, loose, black, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		194.0
6	SP-SANDS, fine grained, trace medium sands, poorly graded, dense, dark brown, moist	709.62		2AL		80		60.0
8	- 0.6' seam silty sands at 8.3ft BGS							
10	END OF BOREHOLE @ 10.0ft BGS	704.62						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-175
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.06						
0	ASPHALT	714.56	2" BOREHOLE					
2	SW/GW-GRAVELLY SANDS (FILL), some debris, fine to medium sands, well graded, paint sludge, cardboard products, metal shavings, black sludge, trace purple staining, loose, black, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		42.1
4								
6	SP-SANDS, fine grained, trace medium sands, poorly graded, dense, dark brown, moist	710.06						
8	- 0.6' seam silty sands at 8.3ft BGS			2AL		80		40
10	END OF BOREHOLE @ 10.0ft BGS	705.06						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-176
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.12						
0	ASPHALT	714.62	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, compact, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		70		--
8	- 0.7' silty sand seam, brown, very moist at 8.5ft BGS			2AL		90		--
10	END OF BOREHOLE @ 10.0ft BGS	705.12						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-177
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.07						
0	ASPHALT	714.57	2" BOREHOLE					
2	SW-SANDS (FILL-debris), fine to coarse sands, some concrete material, black sludge, glass, paper products, well graded, strong odor, black-gray, moist	712.77	BACKFILLED WITH BENTONITE CHIPS	1AL		60		--
4	SP-SANDS (FILL), fine grained, poorly graded, dense, medium brown, moist							
6								
8	- 0.7' silty sand seam at 8.2ft BGS			2AL		75		--
10	END OF BOREHOLE @ 10.0ft BGS	705.07						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-178
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.08						
0	ASPHALT	714.58	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		75		0.0
8	- 0.7' silty sand seam at 8.0ft BGS			2AL		95		0.0
10	END OF BOREHOLE @ 10.0ft BGS	705.08						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-179
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.83						
0	ASPHALT	713.33	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, poorly graded, trace medium sands, compact, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		70		0.0
4								
6								
8	- coarse sands at 7.1ft BGS			2AL		90		1.1
10	- 0.7' silty sand seam at 9.0ft BGS							
12	- wet at 10.5ft BGS - oxidation staining at 12.0ft BGS			3AL		95		0.0
14	CL-SILTY CLAYS trace fine sands, stiff, competent, low plasticity, gray, moist	700.83						
16	END OF BOREHOLE @ 15.0ft BGS	698.83						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 20' north of fence and 6.5' west of SB–17 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 12, 1996	
BORING NO.: SB–18–18	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 9' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: 9:00 Field equipment blank 1TH prepared off the inside of the sampling tube (8'–12' interval).
WEATHER: Overcast, 36°, Wind – NE 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0–1' Gravelly sand, dark yellowish brown.
2		6"	2'	Pb	1'–5' Clayey sand, pale yellowish brown.
3		2'	4'	Pb, PAH Dup Pb	
4		4'	6'	Pb	5'–6' Sandy clay, pale yellowish brown.
5		6'	8'	Pb	6'–7' Sand, little silt and rock fragments, moderate brown. 7'–8' Asphalt and rock fragments.
6		8'	9'	Pb	8'–9' Silty sand, pale yellowish orange. 9'–11' Sandy silt, pale yellowish brown.
					11'–12' Silty sand, pale yellowish orange. End of boring = 12' BGS

REMARKS Duplicate 4TH (2'–4') – Pb

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

m:\480\03470266.wk3

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-180
DATE COMPLETED: October 6, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.31						
0	ASPHALT	713.81	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, trace medium sands, compact, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		70		0.0
2								
4								
6								
8				2AL		90		0.0
10								
12				3AL		95		0.0
	CL-SILTY CLAYS trace fine sands, stiff, competent, low plasticity, gray, moist	701.11						
14		699.31						
	END OF BOREHOLE @ 15.0ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-181
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.90						
0	ASPHALT	714.40	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, trace silts, loose, light brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		0.0
6	- trace fine gravels at 7.0ft BGS			2AL		85		0.0
8	SM-SILTY SANDS, some fine sands, trace clays, compact, brown, moist	706.90						
10	END OF BOREHOLE @ 10.0ft BGS	704.90						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-182
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.69						
0	ASPHALT	714.19	2" BOREHOLE					
2	SW/GW-SANDS AND GRAVELS, fine to coarse grained, trace concrete material, well graded, compact, black-brown, moist	712.39	BACKFILLED WITH BENTONITE CHIPS	1AL		70		0.0
4	SP-SANDS, fine grained, poorly graded, compact, brown, moist							
6								
8	- 0.6' seam silty sands, trace clays, strong odor at 7.5ft BGS			2AL		90		36.7
10	SP/SM-SILTY SANDS, with fine grained sands, poorly graded, compact, brown, moist - decrease in silts at 10.5ft BGS	705.69						
12	SP-SANDS, fine grained, poorly graded, dense, brown, wet - wet at 12.5ft BGS	703.69		3AL		95		18.0
14								
16	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist END OF BOREHOLE @ 15.0ft BGS	699.79 699.69						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-183
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.67						
0	ASPHALT	714.17	2" BOREHOLE					
	SW/GW-SANDS AND GRAVELS, fine to coarse grained, trace concrete and asphalt material, well graded, dark brown, moist							
2	SP-SANDS (FILL), fine grained, poorly graded, dense, medium brown	712.67	BACKFILLED WITH BENTONITE CHIPS	1AL		70		3.3
4								
6								
8	- 0.5' silty sand seam at 8.0ft BGS			2AL		90		3.1
10	END OF BOREHOLE @ 10.0ft BGS	704.67						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-184
DATE COMPLETED:
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	ASPHALT	0.50	2" BOREHOLE					
	SP-SANDS (FILL), fine grained, poorly graded, compact, brown, moist							
2	- trace coarse sands at 2.4ft BGS		BACKFILLED WITH BENTONITE CHIPS	1AL		70		--
4								
6	- trace fine gravels at 6.1ft BGS							
8				2AL		95		--
	- 0.4' silty sand seam at 8.3ft BGS							
	- oxidation staining at 9.0ft BGS							
10	- increase in moisture at 9.9ft BGS	10.00						
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-185
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.18						
0	ASPHALT (parking lot)	714.68	2" BOREHOLE					
2	SW/GW-SANDS AND GRAVELS (FILL), fine to coarse grained, well graded, trace debris, glass, paper products, brown-black, moist	713.18	BACKFILLED WITH BENTONITE CHIPS	1AL		70		10.0
4	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist							
6								
8				2AL		90		78.0
10	END OF BOREHOLE @ 10.0ft BGS	705.18						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-186
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.09						
0	ASPHALT (parking lot)	714.59	2" BOREHOLE					
	SW-SANDS (FILL), fine to medium grained, some vegetation, loose, dark brown, moist							
2	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist	713.09	BACKFILLED WITH BENTONITE CHIPS	1AL		60		0.0
4								
6								
	- oxidation staining at 7.0ft BGS			2AL		90		0.0
8								
	- some silts at 9.2ft BGS							
10	END OF BOREHOLE @ 10.0ft BGS	705.09						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-187
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.79						
0	SW-SANDS (topsoil), fine to medium grained, well graded, trace rootlets	714.39	2" BOREHOLE					
2	SW-SANDS, with gravels, fine to medium grained, poorly graded - 2' debris, paper products, black sludge, glass, strong odor at 1.0ft BGS		BACKFILLED WITH BENTONITE CHIPS	1AL		70		69.2
4	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist	710.79						
6	- 0.3' dark brown seam at 5.0ft BGS							
8	- 0.5' silty sand seam at 7.2ft BGS - grading to silty sands at 8.0ft BGS - oxidation staining at 9.0ft BGS			2AL		90		7.1
10	END OF BOREHOLE @ 10.0ft BGS	704.79						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-188
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.31						
0	SW-SANDS (topsoil), fine to medium grained, well graded, trace rootlets, dark brown, moist	713.81	2" BOREHOLE	1AL		70		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist		BACKFILLED WITH BENTONITE CHIPS					
4								
	END OF BOREHOLE @ 5.0ft BGS	709.31						
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-189
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.53						
2	SW-SANDS (FILL), fine to medium grained, well graded, trace rootlets, dark brown - trace brick material at 2.0ft BGS		2" BOREHOLE	1AL		60		0.0
4	SW-SANDS, fine to medium grained, trace fine gravels, well graded	711.53	BACKFILLED WITH BENTONITE CHIPS					
6	- 0.6' debris seam, paper products, sludge, glass, black, strong odor at 4.0ft BGS	709.83						
8	SP-SANDS, fine grained, poorly graded, loose, light brown			2AL		80		0.0
10	END OF BOREHOLE @ 10.0ft BGS	704.53						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Offset east of proposed location due to utilities conflict (underground) pipes) 18' west of SB–18–13 Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 9, 1996	
BORING NO.: SB–18–19	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate (2.2'–4.2')–(Pb)
WEATHER: Sunny, 30°, Wind – West 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb, PAH, IPAH	Same lithology as SB–18–12 except 2'–4' clayey sand, dark yellowish orange to silty sand, dark yellowish orange.
2		8"	2.2'	Pb, PAH, IPAH	
3		2.2'	4.2'	Dup Pb	4'–8.5' Silty sand, dark yellowish orange.
4		4.2'	6.2'	Pb, PAH, IPAH	
5		6.2'	8.2'	Pb, PAH, IPAH	
6		8.2'	10.2'	Pb, PAH, IPAH	8.5'–10' Sandy silt, dark yellowish orange.
7		10.2'	11.5'	Pb, PAH, IPAH	10'–12' Silty sand – silty sand moderate yellowish brown, moist–wet.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Boring location was offset approx. 36' east due to proposed location lying in an area of underground pipelines.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-190
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.30						
0	SW-SANDS (FILL), fine to medium sands, well graded, trace rootlets, dark brown, moist		2" BOREHOLE					
2				1AL		70		0.0
4	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist	711.30	BACKFILLED WITH BENTONITE CHIPS					
6	- oxidation staining at 5.0ft BGS			2AL		90		0.0
8	- trace silts at 7.1ft BGS - some silts at 7.6ft BGS							
10	END OF BOREHOLE @ 8.0ft BGS	706.30						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-191
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.31						
0	SP-SANDS (FILL), fine grained, trace silts, poorly graded, loose, medium brown - rootlets at 1.0ft BGS		2" BOREHOLE					
2				1AL		60		0.0
4	- becoming grayish-black, strong odor at 4.5ft BGS		BACKFILLED WITH BENTONITE CHIPS					
6								
8				2AL		85		1.2
10	END OF BOREHOLE @ 10.0ft BGS	704.31						
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-192
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.55						
0	SW-SANDS (topsoil), fine to medium grained, trace vegetation, well graded, dark brown, moist	713.55	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, poorly graded, loose, medium brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		80		2.4
4	- trace coarse sands at 3.2ft BGS							
6	- some silts at 6.2ft BGS							
		707.55						
8	SM-SILTY SANDS, trace clays, compact, trace plasticity, dark brown, moist	706.55		2AL		95		6.1
	SP-SANDS, fine grained, trace medium sands, poorly graded, intermittent oxidation staining, brown, moist							
10	- very moist at 9.9ft BGS	704.55						
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-193
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.53						
0	SW-SANDS (topsoil), fine to medium grained, some rootlets, loose, dark brown, moist	712.53	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		0.0
4								
6								
8		705.53		2AL		95		0.0
8	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, brown, moist							
10		703.53						
10	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-194
DATE COMPLETED: October 7, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.12						
0	SW-SANDS (topsoil), fine to medium grained, well graded, dark brown, loose, moist	712.12	2" BOREHOLE					
2	SP-SANDS (FILL), fine grained, trace silts, poorly graded, very loose, light brown, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		0.0
4								
6								
8				2AL		50		0.0
10								
12				3AL		90		0.0
14								
15	END OF BOREHOLE @ 15.0ft BGS	698.12						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser Frazer Dump Area PAOC 18 Approx. 33' north of fence and 20' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 10, 1996	
BORING NO.: SB–18–2	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 6.25' BGS
DRILL TYPE: Hand Auger	COMMENTS: Duplicate 1T (4'–6') (Pb Only)
WEATHER: Cloudy, 32°, Wind – West <5 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	LAB/FIELD TEST TYPE	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH, IPAH	0–2' Silty sand/clayey sand, some gravel, concrete debris, iron slag, debris, dark yellowish brown (10YR 4/2)
2		6"	2'	Pb, PAH, IPAH	2'–5' Gravelly sand, some silt, dark yellowish brown concrete debris, paint sludge (hardened) – green and yellow fragments, glass debris, plastic, debris.
3		2'	4'	Pb, PAH, IPAH,	
4		4'	6'	Pb, PAH, IPAH, Dup Pb–Lab	5'–6.25' – Organic silty clay, brownish black (5YR 2/1), hydrocarbon odors.
5					6.25'–7' Sandy clay–silty clay, grayish black (N2) – dark gray (N3), stained/discolored, petroleum sheen, hydrocarbon odors.
6					
7					End of boring = 7' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

*Note: 9:05–9:20 One soil boring was attempted. Refusal @ 2' BLS – concrete encountered. Boring moved approx. 1' east.
8:20–9:15 Spent time securing safety lines and shoveling soil and debris to make a level surface to hand auger and sample.

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 49' south of fence and 10' east of center of westmost catwalk.
DATE: December 14, 1996	Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
BORING NO.: SB–18–20	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 4' BGS
DRILL TYPE: Hand Auger/Shovel	COMMENTS: 12:35 Duplicate 1S from 6"–2' interval (Pb and 8260 analysis)
WEATHER: Sunny, 40°, Wind – Southwest 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb	0–1.5' Clayey sand, dusky brown, some roots, some rock fragments, little paint (hardened) fragments, metal debris.**
2		6"	2'	Pb, PAH, 8260*	1.5'–2.5' Paint waste material (some hardened and some pliable wastes blended together) colors include shades of blue, red, and purple. Chemical vapors noted.
3		2'	4'	Pb	2.5'–3' Clayey sand, dusky brown, some glass debris.
					3'–4' Organic sandy clay, black.
					4'–5' Organic sandy clay, black.
					End of boring = 5' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

* – Hold 8260 sample for P.M. approval.

** – Metal debris included a crushed rusting 5–gallon metal container. Container was empty.

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Duplicate soil sample collected from 6"–2' interval for Pb and PAH analysis. Did not submit PAH duplicate to lab. Did submit Pb and 8260 duplicate to lab, labeled Duplicate 1S.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-200/MW18-06
DATE COMPLETED: June 7, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.27						
0	SM-SILTY SANDS, trace fine gravels, loose, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist		CONCRETE SEAL	1DP				17.9
2	- orange-brown at 1.3ft BGS		BENTONITE CHIPS					
4	- compact, light brown at 4.0ft BGS		2" PVC WELL CASING	2DP				20.1
6	- trace clays, brown and orange-brown, slight increase in silt and moisture content at 6.0ft BGS		8-1/4" BOREHOLE					
8	- no clays, decrease in silt and moisture content at 8.3ft BGS		SAND PACK	3DP				418
10	- light brown at 9.0ft BGS - very moist at 10.0ft BGS - brown-gray, saturated, moderate petroleum-like odor at 10.5ft BGS		2" PVC WELL SCREEN	4DP				1589
12	- dark amber NAPL in soils at 12.0ft BGS - no NAPL at 12.3ft BGS - dark gray at 13.0ft BGS			5DP				3269
14	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	699.47						
16				6DP				159
18			NATURAL COLLAPSE & BENTONITE CHIPS	7DP				17.1
20	END OF BOREHOLE @ 20.0ft BGS	693.27						
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
707.27 to 697.27ft BGS
6.00 to 16.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
709.27 to 697.27ft BGS
4.00 to 16.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-201
DATE COMPLETED: June 6, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.80						
2	SM-SILTY SANDS, trace fine gravels, loose, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist			1DP				3.5
4	- compact, light brown at 4.0ft BGS			2DP				8.4
6	- medium brown and orange brown, slight increase in silt content and moisture content at 6.0ft BGS		2" BOREHOLE					
8	- trace clays at 7.8ft BGS - brown and rust brown at 8.5ft BGS - orange-brown, decrease in silt content and moisture content at 9.0ft BGS			3DP				65.8
10	- brown, very moist at 10.5ft BGS		BENTONITE CHIPS	4DP				555
12	- saturated slight petroleum-like odor at 11.0ft BGS - brown, gray and rust brown, slight sheen to water, strong petroleum-like odor at 12.0ft BGS			5DP				1558
14	- black staining at 14.0ft BGS - dark gray at 14.3ft BGS							
16	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	698.80		6DP				39.4
18				7DP				15.7
20	END OF BOREHOLE @ 20.0ft BGS	693.80						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-203
DATE COMPLETED: June 2, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.15						
0	ASPHALT	714.85	ASPHALT PATCH					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist - light brown, trace orange streaking at 0.8ft BGS			1DP				27.5
4			2" BOREHOLE	2DP				24.4
6								
8	- gray to dark gray, slight increase in silt and moisture content, slight petroleum-like odor at 7.8ft BGS			3DP				751
10	- black staining, strong petroleum-like odor, very moist at 8.3ft BGS - with clays, orange-brown, slight petroleum-like odor at 8.8ft BGS		BENTONITE CHIPS	4DP				274
12	- trace clays, decrease in silt content and moisture content at 9.5ft BGS - very moist at 10.8ft BGS			5DP				90.1
14	- saturated at 11.3ft BGS - gray, increase in silt content at 12.0ft BGS							
16				6DP				50.8
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	698.40		7DP				6.4
20	END OF BOREHOLE @ 20.0ft BGS	695.15						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-205
DATE COMPLETED: June 6, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.02						
2	SM-SILTY SANDS, trace fine gravels, loose, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist - compact, fine grained, brown at 0.8ft BGS			1DP				8.9
4			2" BOREHOLE	2DP				8.6
6	- orange-brown at 6.0ft BGS							
8	- light brown at 7.3ft BGS - light brown and orange brown, slight increase in silt and moisture content at 7.8ft BGS			3DP				7.9
10	- light brown, decrease in silt and moisture content at 8.5ft BGS		BENTONITE CHIPS	4DP				6.9
12	- very moist at 11.0ft BGS - brown, rust brown and gray layering, saturated at 11.5ft BGS							
14	- gray at 13.0ft BGS - brown, rust brown and gray layering at 14.5ft BGS			5DP				246
16	- brown-gray at 15.0ft BGS			6DP				27.3
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	697.69		7DP				13.9
20	END OF BOREHOLE @ 20.0ft BGS	695.02						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-207
DATE COMPLETED: June 8, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.17						
0	ASPHALT	713.87	ASPHALT PATCH					
2	SM-SILTY SANDS, trace fine gravels, loose, fine grained, poorly graded, trace medium to coarse grained, dark brown, moist - medium brown and orange brown at 0.8ft BGS			1DP				74.0
4	- compact, fine grained at 3.0ft BGS - green-gray to black, strong petroleum-like odor at 4.3ft BGS			2DP				973
6	- with wood, plastic, brick debris, gray at 4.8ft BGS - no debris, brown-gray at 5.3ft BGS		2" BOREHOLE					
8	- increase in silt and moisture content at 6.0ft BGS - 2" CL-SANDY CLAY seam, firm, low plasticity, green-gray and brown mottled, moist, slight petroleum-like odor at 8.8ft BGS			3DP				3005
10	- brown at 9.1ft BGS - gray, very moist at 11.0ft BGS		BENTONITE CHIPS	4DP				4485
12	- trace clays, brown-gray, saturated at 11.3ft BGS - 3" CL-SILTY CLAY seam, firm, low plasticity, gray, very moist at 13.5ft BGS			5DP				3989
14	- brown-gray, sheen to water in soils at 13.8ft BGS	699.42						
16	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist, slight petroleum-like odor			6DP				816
18				7DP				749
20	END OF BOREHOLE @ 20.0ft BGS	694.17						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-208
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	700.70					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist - brown & gray at 0.5ft BGS - gray w/ dark gray to black banding at 1.3ft BGS - red paint sludge debris, very moist to saturated, strong paint-like odor at 1.5ft BGS		2-1/4" BOREHOLE BENTONITE CHIPS	1HA 2HA 3HA 4HA			
2		698.70					
2	END OF BOREHOLE @ 2.0ft BGS						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-209
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	699.30					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist		2-1/4" BOREHOLE	1HA			
	- brown & gray at 0.5ft BGS	697.80		2HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist			3HA			
	- soft to firm, very moist at 2.8ft BGS	695.80	BENTONITE CHIPS	4HA			
4	END OF BOREHOLE @ 3.5ft BGS			5HA			
				6HA			
				7HA			
6							
8							
10							
12							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 11, 1996

BORING NO.: SB-18-21

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Overcast, rain (light), 38°, Wind - NE 10-15 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 24' north of fence and 11' east of center of westmost pipe trestle/catwalk
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 10.5' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH/ IPAH	0-1.5' Clayey sand, dusky brown, some roots, rock fragments, metal and glass debris.
2		6"	2'	Pb, PAH/ IPAH	1.5'-4' Clayey sand, dusky brown and some yellow paint-like fragments (hardened).
3		2'	4'	Pb, PAH/ IPAH	4'-5.5' Sandy silt, light yellowish orange.
4		4'	6'	Pb, PAH/ IPAH	5.5'-9.5' Clayey silt, dark yellowish orange - light yellowish orange - dark yellowish orange.
5		6'	8'	Pb, PAH/ IPAH	9.5'-10.5' Sandy clay, brownish-olive gray. 10.5'-11' Organic sandy clay. 11'-12' Organic silty clay, brownish-olive gray.
6		8'	10'	Pb, PAH/ IPAH	
					End of boring = 12' BGS.

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Attempted a soil boring initially at approx. 3' south of this boring. Refusal at 6' BGS.
Hold PAH & IPAH soil samples until receive authorization from Barb Sullivan to run.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-210
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	699.20					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist		2-1/4" BOREHOLE	1HA			
	- brown & gray at 0.5ft BGS	697.70		2HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	696.70	BENTONITE CHIPS	3HA			
	SM/CI-SILTY SANDS & SILTY CLAYS MIX-sands are compact, fine grained, gray, saturated; clays are firm, medium plasticity, gray, very moist	696.20		4HA			
4				5HA			
	END OF BOREHOLE @ 3.0ft BGS			6HA			
6							
8							
10							
12							
14							
16							
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28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-211
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	698.20					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	697.20	2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	695.70	BENTONITE CHIPS	2HA			
4	SM/CI-SILTY SANDS & SILTY CLAYS MIX-sands are compact, fine grained, gray, saturated; clays are firm, medium plasticity, gray, very moist	695.20		3HA			
6	END OF BOREHOLE @ 3.0ft BGS			4HA			
				5HA			
				6HA			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-212
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	701.40					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist - brown & gray at 0.5ft BGS - gray with black banding, slight paint-like odor at 1.3ft BGS - red & black paint sludge debris, very moist, strong paint-like odor at 1.3ft BGS		2-1/4" BOREHOLE BENTONITE CHIPS	1HA 2HA 3HA 4HA			
2		699.40					
2	END OF BOREHOLE @ 2.0ft BGS						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-213
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	702.30					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	701.80	2-1/4" BOREHOLE BENTONITE CHIPS	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	700.30		2HA			
4	- red & black paint sludge debris, very moist to saturated, strong paint-like odor at 1.5ft BGS			3HA			
6	- 2" SM-SILTY SANDS seam-compact, fine gravel, poorly graded, brown, & gray, saturated at 1.8ft BGS			4HA			
8	END OF BOREHOLE @ 2.0ft BGS						
10							
12							
14							
16							
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26							
28							
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32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-214
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	703.10					
2	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	702.60	2-1/4" BOREHOLE	1HA			
	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	701.10		2HA			
4	SM/CI-SILTY SANDS & SILTY CLAYS MIX-sands are compact, fine grained, gray, saturated; clays are firm, medium plasticity, grey, very moist	700.60	BENTONITE CHIPS	3HA			
	SC-CLAYEY SANDS-compact, fine grained, poorly graded, brown, gray & black, saturated	699.60		4HA			
6	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	699.10		5HA			
8	END OF BOREHOLE @ 4.0ft BGS			6HA			
10				7HA			
12				8HA			
14							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-215
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	699.20					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	698.20	2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist		BENTONITE CHIPS	2HA			
	- with red, yellow & black paint sludge debris, very moist, strong paint-like odor at 2.5ft BGS			3HA			
4	- no paint sludge, debris at 2.8ft BGS			4HA			
	- dark gray to black,moderate paint-like odor at 3.3ft BGS	696.20		5HA			
6	SC/CI-SANDS & CLAYS, loose/soft, fine sands, non to medium plasticity, brown, gray & black, saturated	695.70		6HA			
8	END OF BOREHOLE @ 3.5ft BGS			7HA			
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32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-216
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	698.70					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	697.95	2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist - soft, with fine to coarse sands, trace saturated silty sand seams at 2.5ft BGS		BENTONITE CHIPS	2HA 3HA 4HA 5HA 6HA 7HA			
4	END OF BOREHOLE @ 3.5ft BGS	695.20					
6							
8							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-217
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	699.40					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist		2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, gray, moist	697.90		2HA			
	- soft, with fine to coarse sands, trace saturated silty sand seams at 2.5ft BGS	695.90	BENTONITE CHIPS	3HA			
4	END OF BOREHOLE @ 3.5ft BGS			4HA			
				5HA			
6				6HA			
				7HA			
8							
10							
12							
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18							
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26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-218
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	702.00					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	701.00	2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, brown & gray, moist	700.00	BENTONITE CHIPS	2HA			
	- trace saturated silty sand seams at 1.8ft BGS			3HA			
4	SC-CLAYEY SANDS-compact, fine grained, poorly graded, brown, gray & black, saturated	699.50		4HA			
	END OF BOREHOLE @ 2.5ft BGS			5HA			
6							
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30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-219
DATE COMPLETED: August 11, 2005
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	GROUND SURFACE	701.80					
0	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, dark brown, moist	701.05	2-1/4" BOREHOLE	1HA			
2	CI-SILTY CLAYS, trace fine to coarse sands, firm, medium plasticity, brown & gray, moist - trace saturated silty sand seams at 1.8ft BGS	699.55	BENTONITE CHIPS	2HA 3HA 4HA 5HA			
4	SC-CLAYEY SANDS-compact, fine grained, poorly graded, brown, gray & black, saturated	699.30					
6	END OF BOREHOLE @ 2.5ft BGS						
8							
10							
12							
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16							
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20							
22							
24							
26							
28							
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32							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 2' north of SB–18–21 (See Weston Map–Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 13, 1996	
BORING NO.: SB–18–21A	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 1F (4'–6') – (Pb) Duplicate 6F (4'–6') – (PAH)
WEATHER: Cloudy, 38°, Wind – NW 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, IPAH	0–1' Silty sand, moderate yellowish brown with rock fragments, roots, and paint fragments.
2		6"	2'	Pb, IPAH	1'–5' Paint fragments (blue, dark red, and yellow) dispersed with concrete fragments, and brown sand.
3		2'	4'	Pb, IPAH	
4		4'	6'	Pb, PAH IPAH, Dup Pb, PAH	5'–5.75' Layer of paint waste sludge (dark red). 5.75'–6.5' Coarse sand with rock fragments, rustic discoloration.
5		6'	8'	Pb, IPAH	6.5'–7' Silty sand, some rock fragments, dusky brown. 7'–8' Silty sand, moderate yellowish orange.
6		8'	10.5'	Pb, IPAH	8'–8.5' Silty clay/clayey silt, moderate yellowish brown – light yellowish orange.
					8.5'–10' Clayey sand, some rock fragments, olive brown. 10'–12' Clayey sand, little shell fragments, olive brown.
					End of boring = 12 BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample collected from 4'–6' interval for Pb and PAH analysis, based on paint sludge.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 13' north and 7' east of SB–18–23 (See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 17, 1996	
BORING NO.: SB–18–22	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 6' BGS
DRILL TYPE: Hand Auger	COMMENTS:
WEATHER: Light Snow, 32°, Wind – SW 0–5 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb	0'–3.5' Clayey/gravelly sand, dusky yellowish brown (fill) paint waste fragments at 2'–3' BGS.
2		6"	2'	Pb	
3		2'	4'	Pb, PAH Dup Pb, PAH	3.5'–5' Gravelly sand, coarse grained (fill for pipeline trench/ catwalk pipes situated approx. 2' west of boring).
4		4'	6'	Pb	5'–5.5' Organic silty clay, dusky brown. 5.5'–7' Silty sand, some shell fragments, olive gray.
					End of boring = 7'BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample collected from 2'–4' BGS for Pb and PAH analysis labeled Duplicate 1T2 (soil from 2'–4' BGS for Pb and PAH analyses).

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 11, 1996

BORING NO.: SB-18-23

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Overcast, Drizzle, 39°, Wind - NE 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 40' east and 20' south of SB-18-21 (See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 12' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH IPAH	0-0.5' Clayey sand, dusky brown. 0.5'-2' Silty clay, pale brown.
2		6"	2'	Pb, PAH IPAH	2'-2.5' Paint waste (hardened), brown, gray and dark blue.
3		2'	4'	Pb, PAH IPAH	2.5'-3' Clayey sand, some rock fragments, dusky brown. 3'-3.5' Clayey sand, some rock fragments, dark yellowish orange.
4		4'	6'	Pb, PAH IPAH	3.5'-4' Sand, some silt and rock fragments, dark yellowish orange. 4'-5.5' Sandy silt, light yellowish orange.
5		6'	8'	Pb, PAH IPAH	5.5'-9.5' Clayey silt, dark yellowish orange - light yellowish orange - dark yellowish orange.
6		8'	10'	No Sample Recovery	9.5'-10.5' Sandy clay, brownish-olive gray. 10.5'-11' Organic sandy clay.
7		10'	12'	Pb, PAH IPAH	11'-12' Organic silty clay, brownish-olive gray.
					End of boring = 14' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Void at 8'-9' BGS, concrete and rock debris was found in the 8'-10' sample tube.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 18, 1996

BORING NO.: SB–18–24

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Sunny, 27°, Wind – West 10–15 mph

LOCATION: Kaiser–Frazer Dump Area PAOC 18
13' east and 19' south of
SB–18–23 (See Weston Map – Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
					0–2" Asphaltic concrete.
1		2	8"	Pb	2"–1' Sandy gravel, dusky brown – very pale orange.
					1'–1.5' Clayey sand, moderate yellowish brown.
2		8"	2.2'	Pb, PAH	1.5'–2' Sandy clay, olive gray.
					2'–3' Clayey/silty sand, light yellowish orange.
3		2.2'	4.2'	Pb	3'–8' Clayey/silty sand, some rock fragments, dark – light
					yellowish orange.
4		4.2'	6.2'	Pb	
					8'–9' Silty sand–sandy clay, apparent petroleum discolored soils,
5		6.2'	8.2'	Pb	light olive gray; metal and glass debris, apparent paint waste
					fragments, petroleum (PAH and solvent–like odors).
6		8.2'	10.2'	Pb	9'–10' Sandy clay–clayey sand, dark yellowish orange–
					olive gray, some paint waste fragments, fabric cloth.
7		10.2'	11.5'	Pb	10'–11' Silty clay, olive gray.
					11'–12' Silty/clayey sand, olive gray.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 18, 1996

BORING NO.: SB–18–25

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Sunny, 26°, Wind – West 15–20 mph

LOCATION: Kaiser–Frazer Dump Area PAOC 18
Approx. 40' west of
SB–18–23 (See Weston Map – Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 10.5' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb	0–0.5' Clayey sand, dusky brown. 0.5'–2' Silty clay, pale brown.
2		6"	2'	Pb	2'–2.5' Paint waste (hardened), brown, gray and dark blue.
3		2'	4'	Pb, PAH	2.5'–3' Clayey sand, some rock fragments, dusky brown. 3'–3.5' Clayey sand, some rock fragments, dark yellowish orange.
4		4'	6'	Pb	3.5'–4' Sand, some silt and rock fragments, dark yellowish orange. 4'–5.5' Sandy silt, light yellowish orange.
5		6'	8'	Pb	5.5'–9.5' Clayey silt, dark yellowish orange – light yellowish orange – dark yellowish orange.
6		8'	10.5'	Pb	9.5'–10.5' Sandy clay, brownish–olive gray. 10.5'–11' Organic sandy clay.
					11'–12' Organic silty clay, brownish–olive gray.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-250
DATE COMPLETED: February 5, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268408.9 EASTING: 13344573.48 GROUND SURFACE	715.26						
0	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist			1DP		100		8.3
4		711.01						
6	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange brown, moist							
8	- orange-brown at 8.0ft BGS			2DP		66		77.9
10	- light brown & gray banding, slight odor at 9.3ft BGS		2-1/2" BOREHOLE					
12	- with clays, very moist at 11.5ft BGS	703.01		3DP		85		1212
	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	702.26						
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, dark gray to black-stained, saturated, visible sheen on soils & water, strong petroleum like odor		BENTONITE CHIPS					
16	- brown at 16.0ft BGS							
18	- amber liquid in soils/water at 17.4ft BGS	697.86		4DP		85		9155
20	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor	695.26						
	END OF BOREHOLE @ 20.0ft BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-252
DATE COMPLETED: February 5, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268411.02
EASTING: 13344582.16

GROUND SURFACE 715.06

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist	
4		711.26
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange brown, moist	
7.3	- orange-brown at 7.3ft BGS	
8.5	- brown & orange-brown at 8.5ft BGS	
12		702.81
12	SM/ML-SANDS & SILTS, compact, fine sands, non-plastic, brown & orange brown, very moist to saturated	702.06
13.5		701.56
13.5	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	
16	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown to medium brown, saturated, visible sheen on soils & water, strong petroleum like odor	
18	- dark gray to black, sheen to soils/water, strong petroleum like odor at 14.0ft BGS	696.86
17.3	- medium brown at 17.3ft BGS	
18	- amber liquid in soils/water at 18.0ft BGS	695.06
20	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor,	
20	END OF BOREHOLE @ 20.0ft BGS	

BOREHOLE INSTALLATION

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		80		12.5
2DP		80		68.2
3DP		75		105
4DP		80		10,000+

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-253
DATE COMPLETED: February 5, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268416.02
EASTING: 13344579.29

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.43						
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic							
2				1DP		90		10.1
4		710.43						
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown, moist							
6								
6	- orange-brown at 7.0ft BGS							
8				2DP		60		99.8
8		705.93						
8	SM/ML-SANDS & SILTS, compact, fine sands, non-plastic, light gray & orange-brown mottled, very moist	705.43						
10			2-1/2" BOREHOLE					
10	SM-SILTY SANDS, compact, fine grained, poorly graded, orange-brown & gray, moist							
12	- with silty clay nodules at 11.0ft BGS	702.63						
12		702.13		3DP		80		+9999
12	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist							
14	- medium-brown at 12.5ft BGS							
14			BENTONITE CHIPS					
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, medium gray to black-stained, saturated, visible sheen on soils & water, strong petroleum like odor							
16	- black at 13.0ft BGS							
16	- gray at 13.2ft BGS			4DP		85		+9999
18		696.63						
18	- brown/gray at 16.0ft BGS							
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor							
20		694.43						
20	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-254
DATE COMPLETED: February 5, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268416.88
EASTING: 13344573.89

GROUND SURFACE 714.37

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic	
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist	710.12
8	- orange-brown & light brown banded at 8.0ft BGS	
12	- very moist to saturated at 11.5ft BGS	
	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	701.97 701.77
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown to orange-brown, saturated, visible sheen on soils & water, strong petroleum like odor	
16	- dark gray to black-stained at 13.0ft BGS - brown gray at 14.5ft BGS	
	- amber liquid in soils at 16.9ft BGS	697.27
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor	
20	END OF BOREHOLE @ 20.0ft BGS	694.37
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION: 2-1/2" BOREHOLE; BENTONITE CHIPS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		90		55.7
2DP		60		81.6
3DP		80		7.63
4DP		85		+9999

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

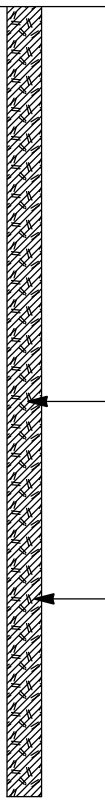
HOLE DESIGNATION: SB18-255
DATE COMPLETED: February 5, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268415.38
EASTING: 13344570.23

GROUND SURFACE 714.68

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic	
4	SM-SILTY SANDS, compact, fine grained, poorly graded, orange brown, moist	710.68
6	- brown and orange-brown at 6.0ft BGS	
8	- brown and gray banded at 8.0ft BGS	
10		
12	- very moist at 11.5ft BGS	
	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown and orange-brown, saturated, visible sheen on soils & water, strong petroleum like odor	702.68
14	- dark gray to black-stained at 13.0ft BGS	
	- gray at 14.5ft BGS	
16		
	- amber liquid in soils/water at 17.1ft BGS	697.58
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor	
20	END OF BOREHOLE @ 20.0ft BGS	694.68
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION



SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		85		38.4
2DP		80		49.2
3DP		75		733
4DP		80		+9999

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-256
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268403.89
EASTING: 13344580.34

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.26						
2	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist			1DP		95		37.1
4		711.26						
6	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist							
8				2DP		66		56.7
	- gray and brown banded at 8.5ft BGS							
10	- brown and orange-brown at 9.5ft BGS		2-1/2" BOREHOLE					
12	- very moist at 12.5ft BGS	702.56		3DP		66		+9999
	red brick debris with sands, saturated	702.36	BENTONITE CHIPS					
14	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	702.16						
16	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown, saturated, visible sheen on soils & water, strong petroleum like odor							
18	- dark gray to black stained, heavy sheen on soils/water at 13.5ft BGS			4DP		80		+9999
	- brown-gray at 17.5ft BGS	696.16						
20	- amber liquidt in soils/water at 18.6ft BGS	695.26						
	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor							
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-257
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268400.11 EASTING: 13344582.17 GROUND SURFACE	715.28						
0	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist							
2				1DP		85		18.6
4		711.78						
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist							
6								
8				2DP		66		29.4
8	- increase in silt content at 8.8ft BGS - decrease in silt content at 9.3ft BGS							
10			2-1/2" BOREHOLE					
12		703.58						
12	ML-SANDY SILTS, compact, fine sands, non-plastic, orange-brown and brown, very moist	703.18		3DP		80		+9999
12		702.68						
14	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist		BENTONITE CHIPS					
16	SP-SANDS, trace with silts, compact, fine grained, poorly graded, brown and orange/brown, saturated, visible sheen on soils & water, strong petroleum like odor							
18	- dark gray staining, strong petroleum-like odor at 13.0ft BGS	697.38		4DP		90		+9999
18	- dark gray to black-stained at 14.5ft BGS - brown/gray at 17.4ft BGS							
20	- amber liquid in soils at 17.9ft BGS	695.28						
22	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor							
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-258
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268421.69
EASTING: 13344569.11

GROUND SURFACE 713.73

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic	
4		708.98
6	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist - orange-brown at 7.5ft BGS - gray and orange-brown banding at 8.3ft BGS - medium brown at 9.0ft BGS	
10		702.03
12	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist - dark gray to black stained, strong petroleum-like odor at 12.4ft BGS	701.63
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, dark gray to black-stained, saturated, visible sheen on soils & water, strong petroleum like odor - brown/gray at 13.5ft BGS	698.43
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor - no odor at 17.5ft BGS	
20	END OF BOREHOLE @ 20.0ft BGS	693.73

BOREHOLE INSTALLATION

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		90		14.2
2DP		66		46.6
3DP		85		2970
4DP		95		+9999

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-259
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268419.14 EASTING: 13344584.06 GROUND SURFACE	713.53						
0	SM/SC-SANDS w/ silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic							
4		709.03		1DP		80		24
6	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange- brown, moist							
8	- orange-brown, increase in silt content at 7.8ft BGS - gray and orange-brown banding at 8.8ft BGS			2DP		20		16.6
10	- very moist to saturated at 10.8ft BGS		2-1/2" BOREHOLE					
12	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	702.23 701.83		3DP		75		1633
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, orange-brown and gray, saturated, visible sheen on soils & water, strong petroleum like odor - dark gray to black-stained at 12.5ft BGS		BENTONITE CHIPS					
16	- brown/gray at 15.2ft BGS - amber liquid in soils/water at 15.8ft BGS	697.63		4DP		90		+9999
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor							
20	END OF BOREHOLE @ 20.0ft BGS	693.53						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 20' north of fence and 92' east of eastmost catwalk/pipe trestle See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 11, 1996	
BORING NO.: SB–18–26	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: 9:00 Field equipment blank #1W prepared off inside of plastic sampling tube for 4'–8' interval Pb and PAH analysis.
WEATHER: Overcast, light rain, 38°, Wind – NE 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb Dup–Pb	0–1' Sandy clay, dark yellowish brown, some rock fragments, roots
2		6"	2'	Pb	1'–4.5' Silty sand, dark yellowish orange.
3		2'	4'	Pb	4.5'–6' Sandy silt, dark yellowish orange.
4		4'	6'	Pb	6'–7' Sandy silt, grayish orange.
5		6'	8'	Pb	7'–8.5' Clayey silt, pale yellowish brown.
6		8'	10'	Pb	8.5'–9' Silty clay, pale yellowish orange. 9'–10' Silty sand, pale yellowish orange.
7		10'	12'	Pb	10'–11' Silty clay, moderate–dark yellowish brown. 11'–14' Sand, olive gray, very fine.
					End of boring = 14' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample collected from 0'–6" interval for Pb analysis.
Duplicate 3W (0–6") – Pb.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

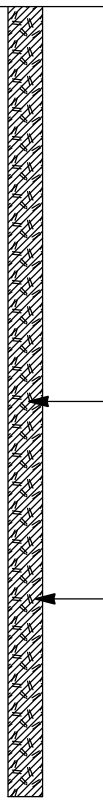
HOLE DESIGNATION: SB18-260
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268409.3
EASTING: 13344589.16

GROUND SURFACE 714.93

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic	
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist	711.43
6	- orange-brown at 6.8ft BGS	
8	- increase in silt content, light gray and orange-brown banding at 8.8ft BGS	
10	- decrease in silt content, gray & orange-brown at 11.0ft BGS	703.23
12	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown, saturated, visible sheen on soils & water, strong petroleum like odor	
14	- dark gray to black-stained at 12.6ft BGS	
16	- amber liquid in soil/water at 16.5ft BGS	698.43
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor	
20	- no odor at 19.0ft BGS	
	END OF BOREHOLE @ 20.0ft BGS	694.93
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION



SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		75		38.4
2DP		80		65.6
3DP		80		1273
4DP		90		4695

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-261
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268396.08
EASTING: 13344600.84

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.11						
0	No Recovery-pushed +2" dia. gravel			1DP		0		
6	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange brown, moist	710.11		2DP		66		60.2
8	- increase in silt content, orange-brown at 8.3ft BGS							
10	- light gray & orange-brown banding at 8.8ft BGS		2-1/2" BOREHOLE					
12	- very moist, brown at 11.5ft BGS							
	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	703.01 702.51		3DP		80		2395
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown, saturated, visible sheen on soils & water, strong petroleum like odor		BENTONITE CHIPS					
16	- 2" CL-SILTY CLAY SEAM at 13.6ft BGS	698.91						
	- brown-gray at 13.8ft BGS							
18	- dark brown to black stained, slight sheen at 14.3ft BGS			4DP		90		899
	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor							
20	- no odor at 18.0ft BGS	695.11						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-262
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268407.69 EASTING: 13344613.08 GROUND SURFACE	714.60						
0	SM/SC-SANDS with silts & clays, compact, fine to coarse grained, poorly graded, medium to dark brown, moist, non-plastic							
2				1DP		80		4.1
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown to orange-brown, moist	710.60						
6								
8	- gray-brown at 7.5ft BGS			2DP		70		8.5
10	- light gray and orange-brown banding, increase in silt content at 9.0ft BGS		2-1/2" BOREHOLE					
12	- very moist to saturated at 11.4ft BGS	702.90		3DP		80		580
	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	702.00						
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, gray, saturated, visible sheen on soils & water, slight petroleum-like odor		BENTONITE CHIPS					
16	- dark gray to black stained, strong petroleum-like odor, slight sheen to soils/water at 14.3ft BGS	698.00						
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor			4DP		90		818
20	- no odor at 18.5ft BGS	694.60						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-263
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268394.02 EASTING: 13344618.8 GROUND SURFACE	714.83						
0	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist							
2				1DP		50		14.2
4	SM-SILTY SANDS, compact, fine grained, partly graded, brown, moist	710.83						
6								
8	- orange-brown and brown at 8.0ft BGS			2DP		75		86.3
10	- increase in silt content, gray and black, slight petroleum-like odor at 9.3ft BGS		2-1/2" BOREHOLE					
12	CL-SILTY CLAYS, firm, low plasticity, medium brown, moist	702.73 / 702.23		3DP		80		1240
14	SP-SANDS, trace to with silts, compact, fine grained, poorly graded, brown-gray, saturated, visible sheen on soils & water, strong petroleum like odor		BENTONITE CHIPS					
16	- dark gray to black-stained at 14.3ft BGS	699.53						
18	CL-SILTY CLAYS, trace fine to coarse sands, firm, low plasticity, brown and gray, moist, petroleum like odor			4DP		75		806
20	END OF BOREHOLE @ 20.0ft BGS	694.83						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-264
DATE COMPLETED: February 6, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268375.58
EASTING: 13344555.95

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.58						
0	Asphalt	715.33						
2	SM/GM-SILTY SANDS & GRAVELS, loose, fine to coarse sands, fine gravels, poorly graded, light brown to dark brown, moist	713.58		1DP		85		125
4	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, medium brown, moist - 2" red brick debris at 3.8ft BGS - brown-gray, trace clays, no gravels at 4.3ft BGS							
6	- fine grained, light brown at 6.0ft BGS			2DP		80		3925
8	- gray and brown banding at 8.2ft BGS - light gray, slight petroleum-like odor at 8.6ft BGS							
10	- dark gray to black, strong petroleum-like odor at 9.0ft BGS		2-1/2" BOREHOLE					
12	- brown-gray, slight petroleum-like odor at 9.3ft BGS			3DP		75		1772
14	- very moist to saturated at 13.6ft BGS CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	701.58	BENTONITE CHIPS					
16	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, gray, saturated, trace silty clay, nodules	699.58		4DP		85		49.3
18	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	697.58						
20	END OF BOREHOLE @ 20.0ft BGS	695.58						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

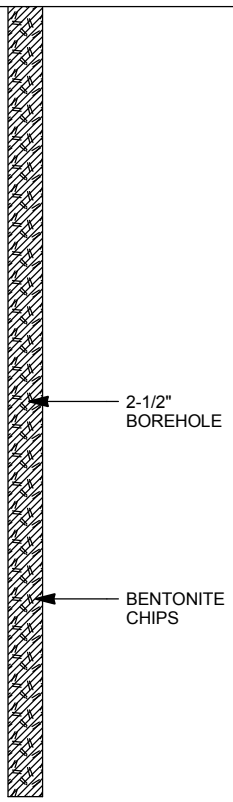
PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-265
DATE COMPLETED: February 7, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268365.87
EASTING: 13344566.94

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.29					
	Asphalt	715.04					
2	SM/GM-SILTY SANDS & GRAVELS, loose, fine to coarse sands, fine gravels, poorly graded, light brown to dark brown, moist	713.29	1DP		85		17.6
4	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, medium brown, moist - brown, no gravels at 4.0ft BGS						
6							
8	- dark gray, black and brown banding, strong petroleum-like odor at 8.0ft BGS		2DP		80		115
10	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	706.04					
12	- 1" SM-SAND SEAM at 11.5ft BGS - 1" SP-SAND SEAM at 12.5ft BGS	702.29	3DP		80		51.2
14	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, gray, saturated, trace silty clay, nodules	701.04					
16	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist						
18			4DP		90		7.1
20	END OF BOREHOLE @ 20.0ft BGS	695.29					
22							
24							
26							
28							
30							
32							
34							

BOREHOLE INSTALLATION



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-266
DATE COMPLETED: February 7, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268371.32
EASTING: 13344581.66

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.16						
0	Asphalt	714.91						
2	SM/GM-SILTY SANDS & GRAVELS, loose, fine to coarse sands, fine gravels, poorly graded, light brown to dark brown, moist	713.41		1DP				357
4	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, medium brown, moist							
6	DEBRIS SEAM-mix of sands, silts, paper debris, glass debris, cork debris, paint sludge debris, brick debris, brown to dark brown, moist, strong solvent/paint-like odor	710.41						
8	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, brown, moist, trace orange-brown banding	707.66		2DP				3992
10	- increase in silt content, brown-gray at 9.0ft BGS - brown at 9.3ft BGS		2-1/2" BOREHOLE					
12	- very moist at 12.5ft BGS			3DP				3373
14	- saturated, gray, slight petroleum-like odor at 13.0ft BGS - dark gray to black, moderate petroleum-like odor at 13.8ft BGS		BENTONITE CHIPS					
16	- gray at 14.3ft BGS CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	699.96						
18				4DP				7.9
20	END OF BOREHOLE @ 20.0ft BGS	695.16						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303-04
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

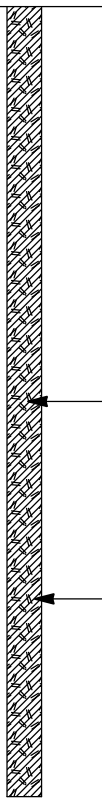
HOLE DESIGNATION: SB18-267
DATE COMPLETED: February 7, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

NORTHING: 268410.54
EASTING: 13344562.91

GROUND SURFACE 715.19

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SM-SILTY SANDS, with gravels, compact, fine to coarse grained, poorly graded, dark brown to gray, moist	
4	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown, moist	711.19
8	- brown and orange-brown at 8.0ft BGS	
10	- gray-brown banding, increase in silt content at 9.3ft BGS - decrease in silt content, brown and orange brown at 9.8ft BGS	
12	- increase in silt content, gray and brown banding at 10.3ft BGS - decrease in silt content, brown and orange-brown at 10.8ft BGS	702.79 702.19
14	CL-SILTY CLAYS, low plasticity, gray, moist, firm, trace fine sands	701.39 701.09 700.69
16	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, gray, saturated, slight petroleum-like odor, with silty clay nodules	700.39 699.99
18	CL-SILTY CLAYS, low plasticity, gray, moist, firm, trace fine sands	
20	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, gray, saturated, slight petroleum-like odor	695.19
22	CL-SILTY CLAYS, low plasticity, gray, moist, firm, trace fine sands	
24	SM-SANDS WITH SILTS, compact, fine grained, poorly graded, gray, saturated, slight petroleum-like odor, with silty clay nodules	
26	CL-SILTY CLAYS, low plasticity, gray, moist, firm, trace fine sands	
28	END OF BOREHOLE @ 20.0ft BGS	
30		
32		
34		

BOREHOLE INSTALLATION



SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		90		22.6
2DP		75		95.5
3DP		75		1280
4DP		75		12.7

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303-04.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-268
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268428.78 EASTING: 13344564.35 GROUND SURFACE	711.79						
0	SP-SANDS (FILL), fine grained, poorly graded, compact, intermittent iron banding, brown, moist		2-1/8" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS	1DP				--
6	- wet at 6.0ft BGS			2DP				469
12	SP-SANDS, fine grained, some medium sands, trace silts, strong odors, grayish black, wet	699.49		3DP				>2000
14	- sheeny, black at 12.8ft BGS	697.09						
	- sheeny, gray at 13.0ft BGS	696.79						
16	- 0.3' NAPL, brown, strong odor at 14.4ft BGS							
18	CL-SILTY CLAYS (native), high silt content, trace fine sands, competent, stiff, low to medium plasticity, gray, dry to moist							
20	END OF BOREHOLE @ 15.0ft BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-269
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 268439.6 EASTING: 13344558.33 GROUND SURFACE	708.97						
0	SP-SANDS (FILL), fine grained, poorly graded, compact, brown, moist		2-1/8" BOREHOLE					
2			BACKFILLED WITH BENTONITE CHIPS	1DP				--
4								
6	- wet at 5.5ft BGS							
8				2DP				334
10								
12		696.87						
	SP-SANDS (FILL), fine grained, poorly graded, gray, sheeny, brown liquid, strong NAPL-like odor, wet	696.07		3DP				267
14	SM-SILTY SANDS, very fine grained, very compact, poorly graded, gray, slight sheen, slight NAPL-like odor, wet	694.17						
16	CL-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	692.97						
18	END OF BOREHOLE @ 16.0ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 17, 1996

BORING NO.: SB–18–27

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Snow flurries, 32°, Wind – SW 10–15 mph

LOCATION: Kaiser–Frazer Dump Area PAOC 18
Approx. 30' north and 30' east of SB–18–27
See Weston Map – Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 6' BGS

COMMENTS: 12:09 Equipment blank 1T2 prepared off inside of hand auger prior to boring for Pb and PAH analysis.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb	0–1.5' Clayey sand; little rock, paint waste fragments, and roots, plastic debris, dusky yellowish brown.
2		6"	2'	Pb	1.5'–3.5' Same as 0–1.5' except moderate yellowish brown.
3		2'	4'	Pb, PAH	3.5'–4.5' Paint waste layer, black and red.
4		4'	6'	Pb	4.5'–6' Clayey/sandy silt – silty sand, dark yellowish orange. 6'–7' Silty sand, light olive gray–black, petroleum sheen.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

m:\480\04470266.wk3

Duplicate soil sample collected from 0–6" for Pb analysis. (Not sent to lab.)
Duplicate soil sample collected from 0–6" for PAH analysis. (Not sent to lab.)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-270
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268435.6
EASTING: 13344549.9
GROUND SURFACE ELEV. ft BGS: 710.77

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SP-SANDS (FILL), fine grained, poorly graded, compact, brown, moist	
2	- some vegetation dark brown at 0.3ft BGS	
4		
6	- intermittent iron banding at 5.0ft BGS	
8	- wet at 6.0ft BGS	
10	- becoming gray, sheeny, strong odors at 7.0ft BGS	
12		
14	NAPL, brown, strong odor	696.27
16	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	695.77
18	END OF BOREHOLE @ 15.0ft BGS	
20		
22		
24		
26		
28		
30		
32		
34		
36		
38		

BOREHOLE INSTALLATION: 2-1/8" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				--
2DP				74.2
3DP				174
4DP				264

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-271
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	NORTHING: 268440.28 EASTING: 13344548.7 GROUND SURFACE	709.01					
0	SP-SANDS (FILL), fine grained, poorly graded, brown, moist		2-1/8" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS	1DP			
6	- wet at 6.5ft BGS						
7.5	- becoming grayish brown at 7.5ft BGS			2DP			
12	- sheeny, black, wet at 12.0ft BGS			3DP			
13	- 0.5' trace NAPL, strong NAPL-like odor at 13.0ft BGS	695.51					
15	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, dry to moist	694.01					
15	END OF BOREHOLE @ 15.0ft BGS						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-272
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268445.78
EASTING: 13344561.95

GROUND SURFACE 706.64

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, brown, moist		2-1/8" BOREHOLE					
2				1DP				16.3
4	- wet at 3.0ft BGS		BACKFILLED WITH BENTONITE CHIPS					
6	- sheeny, black fine sands at 5.0ft BGS							
8				2DP				256
		698.04						
10	SM-SILTY SANDS, fine grained, poorly graded, compact, gray, trace brown NAPL staining, strong odor, black, sheeny	697.04						
	- brown, NAPL at 9.4ft BGS	696.64						
12	CL-SILTY CLAYS (native), trace fine sands, stiff, low to medium plasticity, gray, moist							
14	END OF BOREHOLE @ 10.0ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

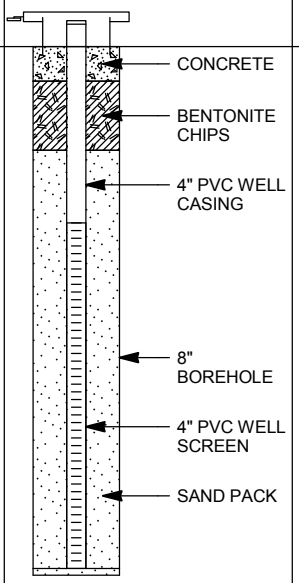
HOLE DESIGNATION: SB18-273/MW18-09
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268435.59
EASTING: 13344560.09

TOP OF CASING 713.02
GROUND SURFACE 710.58

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SP-SANDS (FILL), fine grained, poorly graded, compact, brown, moist	
4	- wet at 3.5ft BGS	
10	SP/SM-SANDS, fine grained, high silt content, poorly graded, compact, gray, wet	700.58
12	- some sheen, black, fine sands at 11.0ft BGS	
13	- 1.1' of NAPL staining observed, brown liquid, strong odor at 13.0ft BGS	
14		696.48
15	CL-SILTY CLAYS (native), trace fine subangular gravels, stiff, low plasticity, gray, moist	695.58
15	END OF BOREHOLE @ 15.0ft BGS	

MONITORING WELL



WELL DETAILS
Screened interval:
705.48 to 695.48ft BGS
5.10 to 15.10ft BGS
Length: 10ft
Diameter: 4in
Slot Size: 0010
Material: PVC
Sand Pack:
707.58 to 695.28ft BGS
3.00 to 15.30ft BGS
Material: SANDS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				NA
2DP				NA
3DP				NA

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-274
DATE COMPLETED: April 26, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268438.37
EASTING: 13344565.05

GROUND SURFACE 709.11

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), fine grained, poorly graded, compact, medium brown, moist		2-1/8" BOREHOLE					
2			BACKFILLED WITH BENTONITE CHIPS	1DP				--
4								
6	- wet at 6.0ft BGS							
8	SP-SANDS (FILL), fine grained, poorly graded, compact, grayish black, sheeny, strong odor, wet	701.61		2DP				273
10	- brown liquid (NAPL), strong odor at 9.5ft BGS - sheeny at 10.0ft BGS							
12	- brown liquid (NAPL), strong odor at 10.9ft BGS	698.11		3DP				194
14	CL-SILTY CLAYS (native), trace fine sands, trace fine subangular gravels, stiff, low plasticity, gray, dry to moist	697.61						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-275
DATE COMPLETED: April 25, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

NORTHING: 268426.24
EASTING: 13344591.17

GROUND SURFACE ELEV. ft BGS: 711.31

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
0	SP-SANDS (topsoil), fine grained, poorly graded, compact, brown, moist	
2	- trace vegetation, dark brown at 0.5ft BGS	
	- some silts at 2.4ft BGS	
4		
6	- iron banding, wet at 6.0ft BGS	
8		
	- becoming grayish-black, very moist to wet at 9.0ft BGS	
10	- becoming black, very sheeny, strong odors from 10-14.6 BGS at 10.0ft BGS	
12		
14	- trace NAPL-like odor at 14.5ft BGS	696.71
	CL-SILTY CLAYS (native), trace fine subangular gravel, stiff, low plasticity, gray, dry to moist	696.31
16	END OF BOREHOLE @ 15.0ft BGS	
18		
20		
22		
24		
26		
28		
30		
32		
34		
36		
38		

BOREHOLE INSTALLATION: 2-1/8" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				1.2
2DP				>2000
3DP				>2000

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 45' west of SB–18–33 and 15' north of fence See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 11, 1996	
BORING NO.: SB–18–28	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 13' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 2W (6"–2') – (Pb)
WEATHER: Overcast, 36°, Wind – NE 10–15 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH/ IPAH	0–1' Silty sand, some rock and coal slag fragments, dusky yellowish brown (10YR 2/2).
2		6"	2'	Dup Pb	1'–3.5' Clayey silt – sandy silt, moderate yellowish brown (10YR 5/4).
3		2'	4'	Pb, PAH/ IPAH	3.5'–3.75' Silty clay, black (N1), discolored, hydrocarbon–like odo 3.75'–4.5' Silty sand, dark yellowish brown.
4		4'	6'	Pb, PAH/ IPAH	4.5'–8.5' Silty sand, dark yellowish orange.
5		6'	8'	Pb, PAH/ IPAH	4.5'–8.5' Silty sand, dark yellowish orange.
6		8'	10'	Pb, PAH/ IPAH	8.5'–10' Sandy silt, dark yellowish orange.
7		10'	12'	Pb, PAH/ IPAH	10'–10.5' Silty clay, moderate yellowish brown, moist, friable. 10.5'–13' Clayey silt, pale yellowish brown, moist.
8		12'	13'	Pb, PAH/ IPAH	13'–13.25' Sand, dark yellowish orange, very fine –fine grained. 13.25'–13.75' Clayey silt, black discoloration, petroleum sheen.
					13.75'–14' Silty clay, olive gray. End of boring = 14' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Boring lies approx. 3' west of a large (3–prong growth) tree.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 18, 1996

BORING NO.: SB-18-29

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Sunny, 27°, Wind - West approx. 15-20 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 8' south of fence and 26' east of outfall 12
See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11' BGS

COMMENTS: 10:52 Equipment blank 2W2 prepared off inside of a 4' sampling tube for Pb analysis only.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2	8"	Pb	0-2" Asphaltic concrete.
2		8"	2.2'	Pb	2"-1' Sandy gravel, dusky brown - very pale orange. 1'-1.5' Clayey sand, moderate yellowish brown.
3		2.2'	4.2'	Pb	1.5'-2' Sandy clay, olive gray. 2'-3' Clayey/silty sand, light yellowish orange.
4		4.2'	6.2'	Pb Dup Pb	3'-8' Clayey/silty sand, some rock fragments, dark - light yellowish orange.
5		6.2'	8.2'	Pb, 8260 Dup 8260	8'-9' Silty sand-sandy clay, apparent petroleum discolored soils, light olive gray; metal and glass debris, apparent paint waste fragments, petroleum (PAH and solvent-like odors).
6		8.2'	11'	Pb, PAH Dup PAH	9'-10' Sandy clay-clayey sand, dark yellowish orange-olive gray, some paint waste fragments, fabric cloth. 10'-11' Silty clay, olive gray.
					11'-12' Silty/clayey sand, olive gray. End of boring = 12' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Hydrocarbon (solvent-like) odors noted in soils recovered from 1'-12' BGS. Petroleum odors (PAHs) noted in soils recovered from 8'-12' BGS.
Duplicate soil sample collected from 4'-6' BGS for Pb analysis, from 8.2'-11' BGS for PAH analysis, and from 6.2'-8.2' BGS for 8260 analysis.

Duplicate I.D.'s for Soil Samples:

Duplicate I.D.	Corresponds to SB#	Lab Analysis
Duplicate 1W2	SB-18-29 (4.2'-6.2')	7421-Pb
Duplicate 2W2	SB-18-29 (8.2'-11')	8100-PAH
Duplicate 3W2	SB-18-29 (6'-8')	8260 (Hold)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser Frazer Dump Area PAOC 18 Approx. 5' north of fence and 30' east of gridline A+00 (see Weston Map–Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 12, 1996	
BORING NO.: SB–18–3	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Overcast, 39°, Wind – NE 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb, PAH, IPAH	0–1' Silty sand/clayey sand, some gravel, dark red solidified paint waste?
2		6"	2'	Pb, PAH, IPAH	2'–4' Gravelly sand, some silt, dark yellowish brown concrete debris, paint sludge (hardened) – green and yellow fragments, glass debris, plastic debris.
3		2'	4'	Pb, PAH, IPAH,	
4		4'	6'	Pb, PAH, IPAH	4'–5' concrete fragments 5'–5.5' concrete fragments
5		6'	8'	Pb, PAH, IPAH	5.5'–9.75' Concrete debris
6		8'	10'	Pb, PAH, IPAH	9.75'–10' Glass and plastic debris 10'–11' Organic silty clay, hydrocarbon odors, dusky brown, shell fragments.
7		10'	11'	Pb, PAH, IPAH	11'–12' Silty clay – sandy silt, olive gray, petroleum sheen, hydrocarbon odors. End of boring = 12'BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

Note: Sample 10'–11' has strong hydrocarbon odors, note on COC.

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 14, 1996

BORING NO.: SB-18-31

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Sunny, 26°, Wind - West 0-5 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 20' southwest of SB-18-35
See Weston Map - Figure 1)

Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 12' BGS

COMMENTS: 8:35 Equipment blank 1S prepared off inside of plastic sampling tube for 4'-8' interval for PAH and Pb analysis.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
					0-2" Asphaltic concrete.
1		2"	8"	Pb	2"-1' Sand and rock fragments (sub base).
				Pb	1'-3' Silty sand, dark yellowish orange.
2		8"	2.2'	Dup Pb	
					3'-3.5' Clayey sand, dark yellowish orange.
3		2.2'	4.2'	Pb, PAH	3.5'-4.5' Silty sand, moderate yellowish orange.
					4.5'-6.5' Gravelly, clayey sand - gravelly sandy clay.
4		4.2'	6.2'	Pb	
					6.5'-7.5' Silty clay, light olive gray.
5		6.2'	8.2'	Pb	7.5'-10.5' Silty sand, pale yellowish brown - moderate yellowish brown - dark yellowish orange.
6		8.2'	10.2'	Pb	
					10.5'-11.75' Silty/sandy clay, dark yellowish orange.
7		10.2'	12'	Pb	11.75'-12' Silty sand, pale yellowish brown.
					End of boring = 12'BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Duplicate soil sample collected from 2.2'-4.2' for PAH analysis. (Not submitted to lab.)
Duplicate soil sample collected from 8"-2.2' for Pb analysis (Duplicate 2S) - submitted to lab.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 10, 1996

BORING NO.: SB-18-33

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Mostly cloudy, 33°, Wind - West <5 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 18' north of fence and 92' west of outfall 13
See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11.5' BGS

COMMENTS:

SAMPLE NO.	DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1	0"		6"	0-1' Silty sand, some rock and coal slag fragments, dusky yellowish brown (10YR 2/2).
2	6"		2'	1'-3.5' Clayey silt - sandy silt, moderate yellowish brown (10YR 5/4).
3	2'		4'	3.5'-3.75' Silty clay, black (N1), discolored, hydrocarbon-like odor. 3.75'-4.5' Silty sand, dark yellowish brown.
4	4'		6'	4.5'-8.5' Silty sand, dark yellowish orange.
5	6'		8'	
6	8'		10'	8.5'-10' Sandy silt, dark yellowish orange.
7	10'	11.5'	12'	10'-10.5' Silty clay, moderate yellowish brown, moist, friable. 10.5'-12.5' Clayey silt, pale yellowish brown, moist.
				End of boring = 12' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 9.5' south of fence and 69' west of outfall 13 See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 13, 1996	
BORING NO.: SB–18–35	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 4F (2.2'–4.2') – (Pb) Duplicate 7F (8"–2.2') – (8260)
WEATHER: Sunny, 41°, Wind – West 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb, 8260*	0–2" Asphaltic concrete. 2"–1' Sandy gravel, pale yellowish brown (sub–base).
2		8"	2.2'	Pb, 8260* Dup 8260	1'–2' Silty sand, olive brown apparent staining and hydrocarbon odors.
3		2.2'	4.2'	Pb, PAH, 8260* Dup Pb	2'–4.5' Paint sludge (red, dark blue), gooey, hydrocarbon odors.
4		4.2'	6.2'	Pb, 8260*	4.5'–6' Sand, moderate yellowish brown, hydrocarbon odors. 6'–7' Silty sand, moderate yellowish brown, (oil–like residue in soil), hydrocarbon odors.
5		6.2'	8.2'	Pb, 8260*	7'–7.5' Clayey sand, dark yellowish orange (oil–like residue in soil), no hydrocarbon odors.
6		8.2'	10.2'	Pb, PAH, 8260*	7.5'–8.5' Silty sand, dark yellowish orange, hydrocarbon odors.
7		10.2'	12'	Pb, 8260*	8.5'–11.5' Silty sand, moderate brown, hydrocarbon odors. 11.5'–12.5' Silty sand, light olive gray, hydrocarbon odors.
					12.5'–13' Sandy silt, light olive gray, hydrocarbon odors. 13'–14' Silty sand, pale yellowish brown – light olive gray, hydrocarbon odors.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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* – Hold 8260 sample for P.M. approval.

Note: All soils between 2' and 14' BGS had hydrocarbon odors.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 13, 1996

BORING NO.: SB-18-36

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Cloudy, 38°, Wind - West 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 40' north of fence and 62' west of outfall 13
See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 5' BGS

COMMENTS: Duplicate 4F (2.2'-4.2') - (Pb)
Duplicate 7F (8"-2.2') - (8260)

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0-1.5' Silty sand, dark yellowish brown, some roots and rock fragments.
2		6"	2'	Pb	1.5'-4' Silty sand, moderate yellowish brown, some roots.
3		2'	4'	Pb, PAH Dup Pb	4'-5' Silty sand, dark yellowish orange.
4		4'	5'	Pb	5'-6' Silty sand/sandy silt, dark yellowish orange - moderate olive brown.
					End of boring = 6' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Duplicate soil sample taken @ 2'-4' interval for Pb analysis.
(Duplicate 2F) - (Pb)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 14' north of fence and 70' west of outfall 13 See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 9, 1996	
BORING NO.: SB–18–37	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 4 (2'–4') – (Pb)
WEATHER: Cloudy, 28°, Wind – West <5 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH IPAH	0–1' Silty sand, some rock and coal slag fragments, dusky yellowish brown (10YR 2/2).
2		6"	2'	Pb, PAH IPAH	1'–3.5' Clayey silt – sandy silt, moderate yellowish brown (10YR 5/4).
3		2'	4'	Dup. Pb	3.5'–3.75' Silty clay, black (N1), discolored, hydrocarbon–like odo 3.75'–4.5' Silty sand, dark yellowish brown.
4		4'	6'	Pb, PAH IPAH	4.5'–8.5' Silty sand, dark yellowish orange.
5		6'	8'	Pb, PAH IPAH	8.5'–10' Sandy silt, dark yellowish orange.
6		8'	10'	Pb, PAH IPAH	10'–10.5' Silty clay, moderate yellowish brown, moist, friable. 10.5'–12.5' Clayey silt, pale yellowish brown, moist.
7		10'	12'	Pb, PAH IPAH	12.5'–14' Silty sand, pale yellowish brown, wet.
					End of boring = 14' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 13, 1996

BORING NO.: SB-18-38

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Cloudy, 38°, Wind - NW 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 41' north of fence and 36' west of outfall 13
See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 5.5' BGS

COMMENTS: 9:50 Field equipment blank 1F prepared off inside of hand auger. Pb & PAH analysis (lab).

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0-1.5' Silty sand, dark yellowish brown, some roots and rock fragments.
2		6"	2'	Pb	1.5'-4' Silty sand, moderate yellowish brown, some roots.
3		2'	4'	Pb, PAH Dup PAH	4'-5' Silty sand, dark yellowish orange.
4		4'	5.5'	Pb	5'-6' Silty sand/sandy silt, dark yellowish orange - moderate olive brown.

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Duplicate soil sample taken at 2'-4' interval for PAH analysis. (Duplicate 5F)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 20' southeast of SB–18–35 See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 14, 1996	
BORING NO.: SB–18–39	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: 9:05 Equipment blank 2S from 0–4' sampling tube.
WEATHER: Sunny, 27°, Wind – West 5 mph	9:10 Equipment blank 3S from 4'–8' sampling tube. Both equipment blanks for PAH analysis only.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb	0–2" Asphaltic concrete. 2"–1' Sand and rock fragments (sub base).
2		8"	2.2'	Pb	1'–3' Silty sand, dark yellowish orange.
3		2.2'	4.2'	Pb, PAH	3'–3.5' Clayey sand, dark yellowish orange. 3.5'–6.5' Silty sand, moderate yellowish orange.
4		4.2'	6.2'	Pb	
5		6.2'	8.2'	Pb	6.5'–7.5' Sandy silt, dark yellowish orange – moderate yellowish brown.
6		8.2'	10.2'	Pb	7.5'–8' Silty clay, dark yellowish orange – moderate yellowish brown.
7		10.2'	12'	Pb	8'–9' Silty sand, dark yellowish orange – moderate yellowish brown.
					9'–10' Sandy–clayey silt, pale yellowish brown – dark yellowish orange.
					10'–12' Silty sand, pale yellowish brown.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 11, 1996

BORING NO.: SB-18-4

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Overcast, 36o, Wind - NE 10-15 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 16' north of fence and 10' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11' BGS

COMMENTS: Duplicate W (0-6") (Pb Only)

SAMPLE NO.	DEPTH FROM	DEPTH TO	Test Type	Lab/Field SOIL DESCRIPTION AND BORING LOG
1	0	6"	Pb, Dup-Pb	0-1' Silty sand/clayey sand, some gravel, dark red solidified paint waste? Material at 0' - 1' interval.
2	6"	2'	Pb	2'-4' Gravelly sand, some silt, dark yellowish brown concrete debris, paint sludge (hardened) - green and yellow fragments, glass debris, plastic, debris.
3	2'	4'	Pb	
4	4'	6'	Pb	4'-7' Plastic debris
5	6'	8'	Pb	7'-8' Concrete debris
6	8'	10'	Pb	
7	10'	11'	Pb	11'-12' Silty sand, dark yellowish orange
				End of boring = 14' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

Note: At approx. 1' BLS, a yellow fragment of hardened paint-waste material encountered.

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 13, 1996

BORING NO.: SB–18–40

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Cloudy, 36°, Wind – NW 5–10 mph

LOCATION: Kaiser–Frazer Dump Area PAOC 18
Approx. 38' north of fence and 16' west of outfall 13
(See Weston Map – Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 6.25' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0–1.5' Silty sand, dark yellowish brown, some roots and rock fragments.
2		6"	2'	Pb	1.5'–4' Silty sand, moderate yellowish brown, some roots.
3		2'	4'	Pb, PAH	4'–5' Silty sand, dark yellowish orange.
4		4'	6'	Pb	5'–7' Silty sand/sandy silt, dark yellowish orange – moderate olive brown.
					End of boring = 7' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample taken @ 2'–4' interval for Pb analysis. (Not submitted to lab.)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 17' north of fence and 38' west of outfall 13 (See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 9, 1996	
BORING NO.: SB–18–41	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 13.5' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: 14:10 (Pb and PH analysis) Equipment rinse #2M blank taken on plastic sampling tube, prior to boring. Taken off inside of plastic sampling tube. (0'–4' interval) (Duplicate 3–Pb)
WEATHER: Cloudy, 28°, Wind – West 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH, lPAH	0–1.5' Silty sand, dark yellowish brown (10YR 4/2).
2		6"	2'	Dup Pb	1.5'–5' Silty sand, dark yellowish orange (10YR 6/6).
3		2'	4'	Pb, PAH, lPAH	
4		4'	6'	Pb, PAH, lPAH	5'–6' Clayey silt – silty clay, dark yellowish orange.
5		6'	8'	Pb, PAH, lPAH	6'–10' Silt, grayish orange (10YR 7/4) – dark yellowish orange.
6		8'	10'	Pb, PAH, lPAH	10'–13' Silty sand, pale yellowish brown (10YR 6/2).
7		10'	12'	Pb, PAH, lPAH	
8		12'	13.5'	Pb, PAH, lPAH	13'–13.5' Silty clay, pale yellowish brown, moist, friable. 13.5'–14' Silty sand, pale yellowish brown, wet.
					End of boring = 14' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample (Duplicate 3) taken from 6"–2' interval for Pb analysis.
Duplicate soil sample collected from 2'–4' interval for PAH analysis, but not submitted to lab.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 23' south of fence and 24' west of outfall 13 (See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 13, 1996	
BORING NO.: SB–18–41A	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: 12:18 Equipment blank 2F prepared off inside of plastic sampling tube for 0–4' interval – (Pb and PAH analysis)
WEATHER: Cloudy, 39°, Wind – NW 10–15 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, IPAH	0'–3' Silty sand, brown.
2		6"	2'	Dup Pb	
3		2'	4'	Pb, PAH, IPAH	3'–6' Silty sand, light yellowish orange.
4		4'	6'	Pb, IPAH	6'–6.5' Clayey sand – sandy clay – clayey silt, light yellowish orange.
5		6'	8'	Pb, IPAH	6.5'–7.5' Silty gravelly sand, light–pale yellowish orange. 7.5'–9' Sandy silt, pale yellowish orange to silt, dark yellowish orange.
6		8'	10'	Pb, IPAH	9'–10' Silty clay, dark yellowish orange and medium gray blended.
7		10'	11'	Pb, IPAH	10'–11' Silty sand, pale yellowish orange – dark yellowish orange. 11'–12' Silty sand, pale yellowish brown.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample collected from 6"–2' for Pb analysis. (Duplicate 3F)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 9, 1996

BORING NO.: SB-18-43

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Cloudy, 30₀, Wind - West 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 16' north of fence and 10' east of outfall 13 (centerline)
(See Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 13' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH IPAH	0-1.5' Silty sand, dark yellowish brown (10YR 4/2).
2		6"	2'	Pb, PAH IPAH	1.5'-5' Silty sand, dark yellowish orange (10YR 6/6).
3		2'	4'	Dup. Pb	
4		4'	6'	Pb, PAH IPAH	5'-6' Clayey silt - silty clay, dark yellowish orange.
5		6'	8'	Pb, PAH IPAH	6'-10' Silt, grayish orange (10YR 7/4) - dark yellowish orange.
6		8'	10'	Pb, PAH IPAH	
7		10'	12'	Pb, PAH IPAH	10'-13' Silty sand, pale yellowish brown (10YR 6/2).
8		12'	13'	Pb, PAH IPAH	13'-13.5' Silty clay, pale yellowish brown, moist, friable.
					13.5'-14' Silty sand, pale yellowish brown, wet.
					End of boring = 14' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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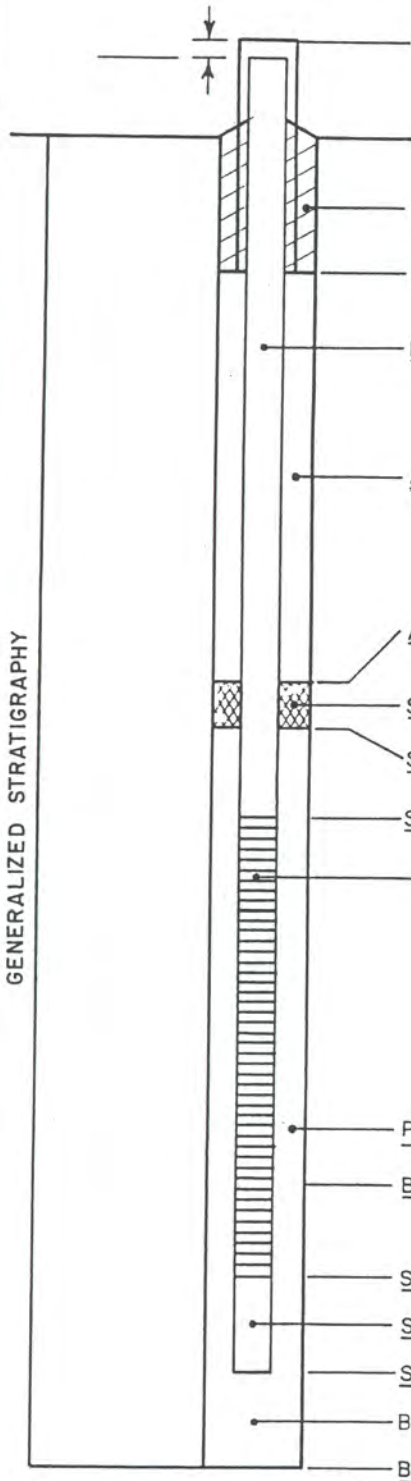
SUBSURFACE FIELD LOG
MONITORING WELL CONSTRUCTION DETAILS

SHEET 1 OF 1

MW-18-45
MONITORING WELL
Willow Run (Kaiser-Frazer Dump Area)
PROJECT:
PROJECT NO. 480.75
BY: Alan Fass
DATE: 12/16/96



PROTECTIVE CASING-MATERIAL Sch. 40 PVC
-HEIGHT ~3 feet
-DIAMETER 2 inches
SURFACE SEAL-MATERIAL Cement Grout
SURFACE SEAL-DEPTH 0-3.5 feet BGS
RISER-MATERIAL Sch. 40 PVC
-DIAMETER 2 inches
ANNULUS-MATERIAL Cement Grout
ANNULUS-DEPTH 3.5 feet BGS
SEAL-MATERIAL Bentonite
SEAL-DEPTH 4.5 feet BGS
SCREEN-TOP 6.5 feet BGS
-MATERIAL Sch. 40 PVC
-SLOT SIZE .010
-LENGTH 10 feet
-DIAMETER 2 inches
PACK-MATERIAL #3 Sand
BORING-DIAMETER 7.25 inches
SCREEN-DEPTH 16 feet BGS
SUMP-LENGTH 6 inches
SUMP-DEPTH 16.5 feet BGS
BACKFILL-MATERIAL #3 Sand
BORING-DEPTH 17 feet BGS

WATER LEVEL UPON COMPLETION 14.65 ft. below Top-of-Casing (T.O.C.)
DRILLER Brad Massey ant - Superior Environmental
METHOD Hollow Stem Auger
RIG TYPE Simco Earthprobe 200
SAMPLING METHOD Bailer
DEVELOPMENT DATE 12/17/96
DEVELOPMENT METHOD Peristaltic Pump (Slow Develop)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 16, 1996

BORING NO.: SB–18–45/MW–18–45

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Sunny, 29°, Wind – West 5 mph

LOCATION: Kaiser–Frazer Dump Area PAOC 18
Approx. 5' east and 3' north of SB–18–37 (See Weston Map – Figure 1)
71' west of outfall 13 and 17' north of fence.
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11' BGS

COMMENTS: Duplicate 1M2 collected from SB–18–45 (6"–2') for Pb analysis. Duplicate 4M2 collected from SB–18–45 (4'–6') for PAH analysis. Equipment blank 4S from 0–4' sampling tube for PAH analysis. Equipment blank 5S from 4'–8'sampling tube for PAH and Pb analysis.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb	0–1' Silty sand, some rock and coal slag fragments, dusky yellowish brown (10YR 2/2).
2		6"	2'	Pb Dup Pb	1'–1.3' Paint sludge/waste.
3		2'	4'	Pb	1'–3.5' Clayey silt – sandy silt, moderate yellowish brown (10YR 5/4).
4		4'	6'	Pb, PAH Dup PAH	3.5'–3.75' Silty clay, black (N1), discolored, hydrocarbon–like odo 3.75'–4.5' Silty sand, dark yellowish brown.
5		6'	8'	Pb	4.5'–8.5' Silty sand, dark yellowish orange.
6		8'	10'	Pb	8.5'–10' Sandy silt, dark yellowish orange.
7		10'	12'	Pb	10'–10.5' Silty clay, moderate yellowish brown, moist, friable. 10.5'–12.5' Clayey silt, pale yellowish brown, moist.
8		12'	14'		12.5'–14' Silty sand, pale yellowish brown, wet.
9		14'	17'		14'–15.5' Silty sand – sandy silt – pale yellowish brown. 15.5'–17' Organic silty clay, olive gray.
					End of boring = 17' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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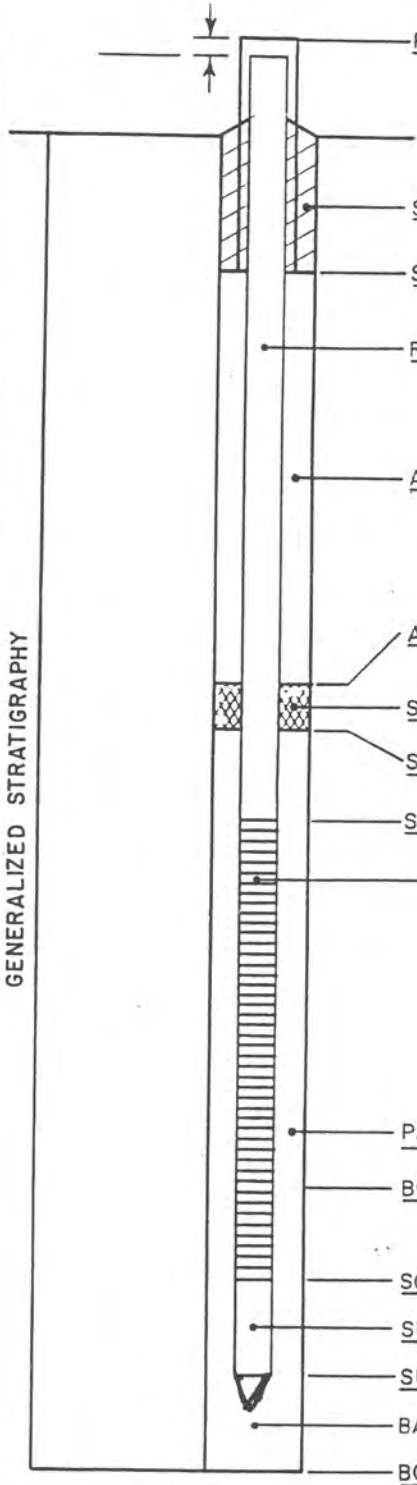
SUBSURFACE FIELD LOG
MONITORING WELL CONSTRUCTION DETAILS

SHEET 1 OF 1

MONITORING WELL MW-18-46
PROJECT: Willow Run (Kaiser-Frazer Dump Area)
PROJECT NO.: 480.75
BY: Alan Fass
DATE: 12/17/96



PROTECTIVE CASING-MATERIAL Sch. 40 PVC
-HEIGHT ~3 ft.
-DIAMETER 2 inches
SURFACE SEAL-MATERIAL Cement Grout
SURFACE SEAL-DEPTH 0-3.5 feet BGS
RISER-MATERIAL Sch. 40 PVC
-DIAMETER 2 inches
ANNULUS-MATERIAL Cement Grout
ANNULUS-DEPTH 3.5 feet BGS
SEAL-MATERIAL Bentonite
SEAL-DEPTH 4.5 feet BGS
SCREEN-TOP 6.5 feet BGS
-MATERIAL Sch. 40 PVC
-SLOT SIZE .010
-LENGTH 10 feet
-DIAMETER 2 inches
PACK-MATERIAL #3 Sand
BORING-DIAMETER 7.25 inches
SCREEN-DEPTH 16.5 feet BGS
SUMP-LENGTH 6 inches
SUMP-DEPTH 16.5 feet BGS
BACKFILL-MATERIAL #3 Sand
BORING-DEPTH 17 feet BGS

WATER LEVEL UPON COMPLETION 14.34 ft. below Top-of-Casing (T.O.C.)
DRILLER Brad Masserant - Superior Environmental
METHOD Hollow Stem Auger
RIG TYPE Simco Earthprobe 200
SAMPLING METHOD Bailer
DEVELOPMENT DATE 12/17/96
DEVELOPMENT METHOD Peristaltic Pump (Slow Develop)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 2' northwest of SB–18–7 (See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 17, 1996	
BORING NO.: SB–18–46	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Cloudy, 34°, Wind – West 10–15 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2'	2.5'	PAH, 8260*	0–12' See SB–18–7 (0–12') lithology except 1.5'–2' paint waste, dark red, brown and black.
					12'–16' Silty sand, dark olive gray, some shell fragments.
					16'–17' Silty clay, light olive gray.
					End of boring = 17' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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*–Hold 8260 sample for P.M. approval.

An initial boring was attempted at SB–18–7 but encountered concrete debris at 2.5' BGS to 7' BGS. Refusal at 7' BGS.

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 13, 1996

BORING NO.: SB-18-48

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Partly sunny, 40o, Wind - West 10-15 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 25' east of SB-18-43
(See Weston Map - Figure 1)

Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 12' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0	6"	Pb	0-1.5' Silty sand, dark yellowish brown (10YR 4/2).
2		6"	2'	Pb, PAH	1.5'-5' Silty sand, dark yellowish orange (10YR 6/6).
3		2'	4'	Pb	
4		4'	6'	Pb	5'-6' Clayey silt - silty clay, dark yellowish orange.
5		6'	8'	Pb	6'-10' Silt, grayish orange (10YR 7/4) - dark yellowish orange.
6		8'	10'	Pb	
7		10'	12'	Pb	10'-13' Silty sand, pale yellowish brown (10YR 6/2).
					13'-13.5' Silty clay, pale yellowish brown, moist, friable.
					13.5'-14' Silty sand, pale yellowish brown, wet.
					End of boring = 14' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Duplicate soil samples were collected from 6"-2' for Pb and PAH analysis. (Not submitted to Lab.)

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 18, 1996

BORING NO.: SB-18-49

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Cloudy, 25°, Wind - West 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 20' southwest of SB-18-8
(See Weston Map - Figure 1)

Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 11.5' BGS

COMMENTS: 9:14 Equipment blank 1W2 prepared off 4'-8' sampling tube for PAH and Pb analysis.

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
					0-2" Asphaltic concrete.
1		2"	8"	Pb	2"-1' Sandy gravel, dusky brown - very pale orange.
				Pb	1'-1.5' Clayey sand, moderate brown, wood debris (black stained).
2		8"	2.2'	Dup Pb	1.5'-3' Silty clay, little sand, dusky brown (5YR 2/2).
					3'-5' Same as 1'-3' except dark yellowish orange (10YR 6/6).
3		2.2'	4.2'	Pb, PAH	
					5'-7' Sandy silt, same color.
4		4.2'	6.2'	Pb	
					7'-8' Silty clay, same color, wet, plastic.
5		6.2'	8.2'	Pb	
					8'-11' Silty sand, same color.
6		8.2'	10.2'	Pb	
					11'-12.2' Sand, fine-medium grained, same color, moist-wet.
7		10.2'	11.5'	Pb	
					End of boring = 12' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

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Duplicate soil sample collected from 8"-2.2' for Pb analysis (Duplicate 4W2).

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 12, 1996

BORING NO.: SB-18-5

RECORDED BY: Alan Fass

DRILL TYPE: Simco Earthprobe 200

WEATHER: Overcast, Drizzle, 38°, Wind - NE 5-10 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 8' south of fence and 20' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 10.25' BGS

COMMENTS: Duplicate 1 TH (2.2'-4.2') (Pb Only)

SAMPLE NO.	DEPTH FROM	DEPTH TO	Test Type	Lab/Field SOIL DESCRIPTION AND BORING LOG
1	2"	8"	Pb	0-2" Asphaltic Concrete
2	8"	2.2'	Pb	2" - 1' Sand and rock fragments pale yellowish brown (fill material)
3	2.2'	4.2'	Pb, PAH Dup Pb, PAH	1'-5' Sand, coal, iron slag, and apparent roof shingle debris (fill material), rock fragments and other debris.
4	4.2'	6.2'	Pb	5'-7' Iron slag, some clayey sand (fill material).
5	6.2'	8.2'	Pb	7'-8.5' Sandy clay to clayey sand, dark yellowish orange.
6	8.2'	10.2'	Pb	8.5'-11' Silty sand, dark yellowish orange - pale yellowish brown.
				11'-12' Sandy silt, pale yellowish brown.
				End of boring = 12.5' BGS

REMARKS Borehole grouted and asphalt patched.

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

8:15 - Attemped boring at approx. 1' east of this boring. Driller advanced probe 0-8' BGS with approx. 30-35% recovery, so another boring was attempted to obtain better recovery. Second attempt resulted in approx. 50% recovery. Apparent fill material.

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 25' west of SB–18–1 (See Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 18, 1996	
BORING NO.: SB–18–50	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Light snow, 24°, Wind – West 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb	0–2" Asphaltic concrete. 2"–1' Sandy gravel, dusky brown – very pale orange.
2		8"	2.2'	Pb	1'–3' Clayey sand, some rock fragments, moderate brown.
3		2.2'	4.2'	Pb, PAH	3'–10' Fill material consisting of sandy gravel, (discolored black–dusky brown), iron slag.
4		4.2'	6.2'	Pb Dup Pb	
5		6'	8.2'	Pb	
6		8.2'	10.2'	Pb	10'–10.5' Organic silty clay, dusky brown, glass debris.
7		10.2'	12'	Pb	10.5'–12' Clayey–silty sand, dark yellowish orange.
					End of boring = 12.5' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Duplicate soil sample collected from 4.2'–6.2' for Pb analysis. (Duplicate 5W2)
Driller had to resample 0–12' BGS due to poor recovery (voids or non compact fill).

SOIL BORING LOG

Exploration for: Lead, PAH

Date: 3/22/97

Boring No.: SB-51

Record By: John Menhennett

Drill Type: Geoprobe

Weather: Overcast, cool 30°F

Location

WILLOW RUN CUO FACILITY
YPSILANTI, MICHIGAN

Water Table

10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12'	N/A	fill rock material
		12"	3.5'	N/A	7.5YR 3/2 (dark brown) very fine to fine grained sand sub rounded to rounded - moderately sorted
		3.5'	7.0'	N/A	10YR 5/6 (yellowish brown) - Very fine to fine grained sand - sub rounded to rounded - moderately sorted
		7	7.5'	N/A	10YR 6/6 (brownish yellow) same description as above
		7.5	8.0	N/A	10YR 6/1 (gray) silty clay
		8.0'	10.5'	N/A	10YR 6/6 (brownish yellow) Very fine to fine grained sand - sub rounded to rounded - moderately sorted
		10.5'	12.0'	N/A	10YR 6/1 (gray) silty clay.

*Remarks PH – Post Hole Digger
SPT – Standard Penetration Test
N/A - Not applicable

BLS - Below Land Surface.

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SOIL BORING LOG

Exploration for: LEAD

Date: 3/22/97

Boring No.: SB-52

Record By: John Menhennet

Drill Type: Geoprobe

Weather: Overcast - Cool 30°F

Location

WILLOW RUN CVO FACILITY

YPSILANTI, MICHIGAN

Water Table

10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	rock fill material
		12"	3'	N/A	5Y 3/1 (very dark gray) clayey sand - low plasticity
		3'	4.5'	N/A	2.5Y 4/4 (olive brown) very fine to fine grained sand with rounded to rounded - moderately sorted.
		4.5	7.0'	N/A	10YR 5/6 (yellowish brown) clayey sand - very fine to fine grained - sub rounded to rounded - moderately sorted
		7.0'	8.0'	N/A	2.5Y 6/6 brownish yellow clayey sand - very fine grained to fine grained - sub-rounded to rounded moderately sorted.
		8.0'	12.0'	N/A	10YR 6/4 (light yellowish brown) sand - very fine to fine grained - sub rounded to rounded - moderately sorted.

*Remarks PH – Post Hole Digger
SPT – Standard Penetration Test
N/A - Not Applicable

BLS - Below Land Surface.

SOIL BORING LOG

Exploration for: LEAD

Date: 3/22/97

Boring No.: SB-53

Record By: JOHN MENHENNETT

Drill Type: GEOPROBE

Weather: ONEcast, cool 30°F

Location

WILLOW RUN CVO FACILITY

YPSILANTI, MICHIGAN

Water Table

10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	fill rock material
		12"	18"	N/A	7.5 YR 3/2 (very dark brown) very fine to fine grained road subbase to sanded - moderately sorted
		18"	3'	N/A	5Y 3/1 (very dark gray) sandy clay - low plasticity
		3'	10'	N/A	10 YR 6/6 (brownish yellow) ~~very fine to fine grain~~ sand - subrounded to rounded - ~~moderately sorted~~
		10'	12'	N/A	2.5 Y 4/2 (dark grayish brown) sandy clay - low to moderate plasticity.

*Remarks PH – Post Hole Digger

SPT – Standard Penetration Test

N/A – not applicable

BLS - Below Land Surface.

SOIL BORING LOG

Exploration for: LEAD

Date: 3/22/97

Boring No.: SB-5.4

Record By: JOHN MENHENNETT

Drill Type: GEOPROBE

Weather: OVERCAST, COOL 30°F

Location

WILLOW RUN CVO FACILITY

YPSILANTI, MICHIGAN

Water Table

10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	fill rock material
		12"	18"	N/A	7.5 YR 3/2 (very dark brown) very fine to fine Gravel sand mixtures to sandest - moderately sorted
		18"	3'	N/A	5Y 3/1 (very dark gray) sandy clay - low plasticity
		3'	10'	N/A	10 YR 6/6 (brownish yellow) very fine to fine quartz sand - subrounded to rounded - moderately sorted
		10'	12'	N/A	2.5 Y 4/2 (dark grayish brown) sandy clay - low to moderate plasticity.

*Remarks PH – Post Hole Digger
SPT – Standard Penetration Test
N/A – not applicable

BLS – Below Land Surface.

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SOIL BORING LOG

Exploration for: LEAD

Date: 3/22/97

Boring No.: SB-55

Record By: JOHN MENHENNETT

Drill Type: GEOPROBE

Weather: OVERCAST, COOL 30°F

Location

WILLOW RUN CVO FACILITY

YPSILANTI, MICHIGAN

Water Table

10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	fill rock material
		12"	18"	N/A	7.5 YR 3/2 (very dark brown) very fine to fine grained sand w/ trace to rounded - moderately sorted
		18"	3'	N/A	5Y 3/1 (very dark gray) sandy clay - low plasticity
		3'	10'	N/A	10 YR 6/6 (brownish yellow) ~~very fine to fine grain~~ sand - ~~sub~~ rounded to rounded - ~~moderately~~ sorted
		10'	12'	N/A	2.5 Y 4/2 (dark grayish brown) sandy clay - low to moderate plasticity.

*Remarks: PH – Post Hole Digger; SPT – Standard Penetration Test; N/A – not applicable; BLS – Below Land Surface.

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SOIL BORING LOG

Exploration for: LEAD

Location: WILLOW RUN CVO FACILITY, YPSILANTI, MICHIGAN

Date: 3/22/97

Boring No.: SB-56

Record By: JOHN MENHENNETT

Drill Type: GEOPROBE

Weather: OVERCAST, COOL 30°F

Water Table: 10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	fill rock material
		12"	18"	N/A	7.5 YR 3/2 (very dark brown) very fine to fine grained sand w/ boulders to rounded - moderately sorted
		18"	3'	N/A	5Y 3/1 (very dark gray) sandy clay - low plasticity
		3'	10'	N/A	10 YR 6/6 (brownish yellow) very fine to fine grain sand - subrounded to rounded - moderately sorted
		10'	12'	N/A	2.5 Y 4/2 (dark grayish brown) sandy clay - low to moderate plasticity.

*Remarks: PH – Post Hole Digger; SPT – Standard Penetration Test; N/A – not applicable; BLS – Below Land Surface.

SOIL BORING LOG

Exploration for: LEAD

Location: WILLOW RUN CVO FACILITY, YPSILANTI, MICHIGAN

Date: 3/22/97

Boring No.: SB-57

Record By: JOHN MENHENNETT

Drill Type: GEOPROBE

Weather: OVERCAST, COOL 30°F

Water Table: 10' BLS

Sample No.	Type	Depth From	Depth To	No. of Blows	Soil Description and Boring Log
		LS	3"	N/A	asphalt
		3"	12"	N/A	fill rock material
		12"	18"	N/A	7.5 YR 3/2 (very dark brown) very fine to fine grained sand subrounded to rounded - moderately sorted
		18"	3'	N/A	5Y 3/1 (very dark gray) sandy clay - low plasticity
		3'	10'	N/A	10 YR 6/6 (brownish yellow) very fine to fine grained sand - subrounded to rounded - moderately sorted
		10'	12'	N/A	2.5 Y 4/2 (dark grayish brown) sandy clay - low moderate plasticity.

*Remarks: PH – Post Hole Digger; SPT – Standard Penetration Test; N/A – not applicable

BLS - Below Land Surface.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-58
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.03						
0	SP-SANDS, trace silts (FILL), loose, fine grained, poorly graded, dark brown, moist	702.53	2" BOREHOLE	1MC				
2	OL-ORGANIC CLAYEY SILTS, (natural), compact, fine grained, poorly graded, light brown, dry	701.53				80		0.0
		700.83	BENTONITE CHIPS	2MC				
4	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, brown, moist - 2" lens organic silts at 2.0ft BGS - 3" sheen at 2.3ft BGS	699.53				100		32
6	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, black, wet, petroleum type odor	699.03						
8	CI-SILTY CLAY, trace roots (natural), firm, medium plasticity, gray, moist							
	END OF BOREHOLE @ 4.0ft BGS							
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-59
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.66						
2	SP-SANDS, trace silts (FILL), trace rootlets, loose, fine grained, poorly graded, brown, dry - rootlets not present, orange-brown, damp, compact at 1.5ft BGS		2" BOREHOLE	1MC		60		0.0
4	- black, odor, wet, slight sheen (petroleum type odor) at 4.6ft BGS		BENTONITE CHIPS	2MC		100		0.0
6				3MC		100		64
8	CL-SILTY CLAY, (natural), firm, medium plasticity, gray, moist	699.66		4MC		70		28
	END OF BOREHOLE @ 8.0ft BGS	698.66						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 10, 1996

BORING NO.: SB-18-6

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Cloudy, 35°, Wind - West <5 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 26' north of fence and 64' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 6.5' BGS

COMMENTS: Duplicate 4 T (4'-6') - PAH
Duplicate 2T (4'-6') - Pb

SAMPLE NO.	DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1	0"	6"	Pb, PAH IPAH	0-2' Silty sand/clayey sand, some gravel, concrete debris, iron slag, debris, dark yellowish brown (10YR 4/2)
2	6"	2'	Pb, PAH IPAH	2'-5' Gravelly sand, some silt, dark yellowish brown concrete debris, paint sludge (hardened) - green and yellow fragments, glass debris, plastic, debris.
3	2'	4'	Pb, PAH IPAH	
4	4'	6'	Pb (dup), IPAH,PAH PAH - Lab	5'-5.5' Sand, dark yellowish orange (10 YR 6/6), coarse grained, some gravel. 5.5'-6.5' Organic silty clay, brownish black (5YR 2/1), hydrocarbon odors.
5				6.5'-7' Sandy clay - silty clay, grayish black (N2) - dark gray (N3), stained/discolored, petroleum sheen. Hydrocarbon odors.
6				End of boring = 7' BGS
	7			

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

m:\480\02270266.wk3

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-60
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.72						
2	SP-SANDS, with silts (FILL), compact, fine grained, poorly graded, black, moist - medium brown at 0.5ft BGS		2" BOREHOLE	1MC				
2						50		10.4
4	- black, faint petroleum type odor, wet at 3.0ft BGS		BENTONITE CHIPS	2MC				
4						70		180
4	- sheen at 4.8ft BGS	700.72		3MC				
6	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist	699.72				80		220
6	END OF BOREHOLE @ 6.0ft BGS							
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-61
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	702.72						
0	MH-SANDY SILTS, trace clay (FILL), loose, fine grained, poorly graded, brown, very moist		2" BOREHOLE					
2	- gray and black, very moist to wet, faint organic odor at 1.5ft BGS			1MC				
		699.72	BENTONITE CHIPS					
4	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist					90		6.2
6								
8				2MC				
10	END OF BOREHOLE @ 10.0ft BGS	692.72				90		0.0
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-62
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.90						
0	CL-SILTY CLAY, trace rootlets (FILL), firm, low plasticity, gray, moist		2" BOREHOLE	1MC				
2	MH/SM-SILTY SANDS, trace clay (FILL), compact, fine grained, poorly graded, brown, moist	704.20	BENTONITE CHIPS	2MC		70		0.0
4	- very moist to wet at 2.1ft BGS					70		0.0
	- 2" lens sand at 5.5ft BGS	700.70		3MC				
6	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist					70		0.0
	- 3" lens sand at 6.2ft BGS			4MC				
8	- 1" lens sand at 6.6ft BGS					100		0.0
	- 2" lens sandy clay at 8.4ft BGS			5MC				
10	END OF BOREHOLE @ 10.0ft BGS	695.90				100		0.0
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-63/MW18-01
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	708.00						
0	MH-SANDY SILTS, trace clay (FILL), loose, fine grained, poorly graded, gray, moist	707.30	BENTONITE CHIPS	1MC				
2	CL/ML-CLAYEY SILTS, trace sands (FILL), firm, low plasticity, gray, moist	706.50						
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist		2" PVC WELL CASING			70		0.0
4								
	- wet at 5.5ft BGS		8-1/4" BOREHOLE					
6								
	- black, odor present at 7.5ft BGS			2MC				
8	- gray at 8.0ft BGS		2" PVC WELL SCREEN					
	- strong odor, brown liquid at 9.7ft BGS	698.20						
10	CL-SILTY CLAY, (natural), firm, low plasticity, gray, moist	698.00	SAND PACK			100		1100
	END OF BOREHOLE @ 10.0ft BGS							
12	NOTE: BORING COMPLETED ON NOVEMBER 24, 2003, MONITORING WELL COMPLETED ON MAY 17, 2004							
14								
16								
18								
20								
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24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.80 to 697.80ft BGS
5.20 to 10.20ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
704.50 to 697.50ft BGS
3.50 to 10.50ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-64/MW18-02
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	707.28						
0	CL-SILTY CLAY, with rootlets (topsoil), (FILL), firm, low plasticity, dark brown, moist	707.08		1MC				
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist		BENTONITE CHIPS	2MC		80		0.0
4			2" PVC WELL CASING	3MC		80		0.0
6	- wet at 6.0ft BGS		8-1/4" BOREHOLE	4MC		80		5.4
8	- dark gray, staining, odor at 7.0ft BGS		2" PVC WELL SCREEN	5MC		80		2000+
10	- visible brown liquid, strong odor (product) at 9.4ft BGS	697.48	SAND PACK			60		2000+
12	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist	697.28						
14	END OF BOREHOLE @ 10.0ft BGS							
16	NOTE: BORING COMPLETED ON NOVEMBER 24, 2003, MONITORING WELL COMPLETED ON MAY 17, 2004							
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.18 to 697.18ft BGS
5.10 to 10.10ft BGS
Length: 5ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
703.78 to 696.78ft BGS
3.50 to 10.50ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-65
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.55						
0	ASPHALT	715.30						
	SM/CL-SANDY SILTS AND CLAYS, trace fine gravels, compact/firm, fine to coarse sands, low to non plastic, medium brown, moist	714.05						
2	SM-SILTY SANDS, trace fine gravels, fine to coarse grained, poorly graded, dark brown, moist			1DP (0-2', -339)				0.8
4	- fine grained, light brown, trace orange streaks, oxidation at 2.0ft BGS - brown at 4.0ft BGS		2" BOREHOLE					
6	- rust brown banding/streaking at 7.3ft BGS			2DP				2.5
8	- trace to with clays, brown-gray with rust brown streaking, oxidation, very moist at 8.3ft BGS							
10	- no clays, very moist at 9.0ft BGS	705.55	BENTONITE CHIPS					
	CL-SILTY CLAYS, firm, low plasticity, gray, moist	704.80						
12	SM/CL-INTERBEDDED SILTY SANDS AND SILTY CLAYS, fine grained sands, gray, saturated/low plasticity, gray, moist clays			3DP (9-11', -340)				2.8
		702.05						
14	SM-SILTY SANDS, compact, fine grained, poorly graded, brown and gray, saturated							
16								
		699.05						
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist			4DP				0.9
20	END OF BOREHOLE @ 20.0ft BGS	695.55						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-66
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.09						
0	ASPHALT, black	714.84						
	SM-SILTY SANDS, trace clays and fine gravels, loose, fine to coarse grained, poorly graded, brown, moist			1DP 0-2' -337				0.6
2								
4			2" BOREHOLE					
6				2DP				1.4
8	- light brown, very moist at 8.0ft BGS							
	- wood debris-3" thick, black, stained at 8.8ft BGS			3DP 8-10' -338				+2000
10	- dark gray to black, strong petroleum-like odor, very moist at 9.0ft BGS		BENTONITE CHIPS					
	- saturated at 10.8ft BGS							
12	- black at 12.0ft BGS			4DP				+2000
	- dark gray to black at 12.8ft BGS							
14								
	- fine to coarse grained at 15.0ft BGS	699.84						
16	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist, slight petroleum-like odor							
	- no odor at 16.5ft BGS			5DP				0.5
18								
20	END OF BOREHOLE @ 20.0ft BGS	695.09						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-67
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.36						
0	ASPHALT, black	714.11						
	CRUSHED BRICK, red	713.86						
2	SM-SILTY SANDS, loose, fine to coarse grained, poorly graded, dark brown, moist			1DP (0-2' -335)				0.9
	- light brown, fine to medium grained at 1.3ft BGS							
4								
			2" BOREHOLE					
6	- 2" crushed asphalt, dark gray at 6.0ft BGS							
8	- very moist to saturated at 8.0ft BGS			2DP (6-8' -336)				12.8
		705.11	BENTONITE CHIPS					
10	CL-SANDY CLAYS, firm, low plasticity, fine sands, gray, moist							
		702.86						
12	SM-SILTY SANDS, compact, fine grained, poorly graded, brown with orange banding, saturated, oxidation			3DP				78.8
14								
	- gray at 15.5ft BGS							
16								
		697.36						
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist			4DP				0.4
	- stiff at 19.5ft BGS							
20	END OF BOREHOLE @ 20.0ft BGS	694.36						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-68
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.90						
0	ASPHALT, black	714.65						
	SM-SILTY SANDS, loose, fine to medium grained, poorly graded, white-gray, moist							
2	- orange-brown, oxidation at 0.8ft BGS			1DP (0-2' -333)				73.5
	- brown with orange banding at 2.5ft BGS							
4	- light brown at 4.0ft BGS							
			2" BOREHOLE					
6								
	- very moist at 7.0ft BGS			2DP (9-11' -334)				384
8								
	CL-SANDY CLAYS, firm, low plasticity, rust brown and gray mottled, moist	706.40						
		705.90						
10	SM-SILTY SANDS, compact, fine grained, poorly graded, brown-gray and rust brown banded, very moist, slight odor		BENTONITE CHIPS					
12	- strong petroleum-like odor, gray at 10.0ft BGS			3DP				1278
	- saturated at 11.5ft BGS							
14	- orange brown at 11.8ft BGS							
	- brown, slight petroleum-like odor at 12.5ft BGS							
16				4DP				0.8
	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	698.40						
18								0.0
20	END OF BOREHOLE @ 20.0ft BGS	694.90						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-69
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.68						
0	ASPHALT, black	714.43						
	SM-SILTY SANDS, compact, fine to medium grained, poorly graded, orange-brown, moist, oxidation							
2	- brown at 3.0ft BGS			1DP 0-2' -331				0.8
4			2" BOREHOLE					
	- very moist at 5.5ft BGS							
6	- saturated, orange banding, oxidation at 6.3ft BGS							
	- brown and gray, trace clays at 7.5ft BGS			2DP 4-6' -332				0.2
8								
		705.18						
10	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	704.68	BENTONITE CHIPS					
	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated							
12	- rust brown and gray oxidation at 13.0ft BGS			3DP				0.3
14		700.43						
	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	699.68						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 11' north of fence and 60' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 12, 1996	
BORING NO.: SB–18–7	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 2 TH (2'–4') (Pb)
WEATHER: Overcast, 39°, Wind – NE 5–10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lab/Field Test Type	SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH IPAH	0–1.5' Clayey sand, dark yellowish brown, some rock fragments and grass.
2		6"	2'	Pb, PAH IPAH	1.5'–2.5' Clayey sand as above, and solidified paint waste? material (blue and dark red)
3		2'	4'	Pb, PAH IPAH Dup Pb	2.5'–4' Silty clay, moderate–dark yellowish brown, some rock and metal fragments.
4		4'	6'	Pb, PAH IPAH	4'–5.5' Clayey sand, dark yellowish brown. 5.5'–5.75' Paint waste? (solidified)
5		6'	8'	Pb, PAH IPAH	5.75'–6' Silty clay, moderate yellowish brown. 6'–7' Sand and paint waste?
6		8'	10'	Pb, PAH IPAH	7'–7.25' Black hardened material (looks like coal but noteable hydrocarbon odors)
					7.25'–9' Silty sand, pale–dark yellowish orange and glass debris. 9'–10' Sand clay, dark yellowish orange–olive gray.
					10'–11.5' Sandy silt, olive gray. 11.5'–12' Silty sand, black, apparent discoloration.
					End of boring = 12' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-70
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.10						
0	ASPHALT	714.85						
	SM-GRAVELLY SANDS, with silts, loose, fine to coarse grained, poorly graded, brown, moist, fine gravels							
2	- light brown, trace crushed concrete at 1.0ft BGS	712.10		1DP (0-2') -328				234
	- dark brown, slight petroleum-like odor at 1.5ft BGS	711.35						
4	CRUSHED CONCRETE, white	710.60	2" BOREHOLE					
	ASPHALT, black							
6	DEBRIS, mix of paper, asphalt, paint sludge, sands, silts and clays, gray to black, fine to medium sands, very moist, strong paint-like odor	708.60		2DP (5-6') -330				758
8	SM-SILTY SANDS, compact, fine grained, poorly graded, light brown, moist, trace oxidation, strong paint-like odor							
10	- orange banding, oxidation at 8.5ft BGS		BENTONITE CHIPS					
	- very moist, brown-gray at 11.5ft BGS							
12	- saturated, moderate paint-like odor at 12.0ft BGS			3DP (10-12') -329				148
14								
16	- slight paint-like odor at 16.0ft BGS							
	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	698.10		4DP				25.8
18								
20								
22				5DP				12.9
24								
	END OF BOREHOLE @ 25.0ft BGS	690.10						
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-71
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	698.94						
0	CL-SILTY CLAYS, trace fine to medium sands, soft to firm, low plasticity, gray, moist to very moist - firm at 0.5ft BGS		2" BOREHOLE BENTONITE CHIPS	1DP (0-2' -348)				0.4
2				2DP				0.2
4				3DP				0.2
6	END OF BOREHOLE @ 6.0ft BGS	692.94						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-72
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.71						
0	CL-SANDY CLAYS, trace silts, soft, low plasticity, black and gray, very moist, slight odor	698.96		1DP 0-2' -346				6.8
2	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist		2" BOREHOLE	2DP 3-4' -347				0.1
4			BENTONITE CHIPS	3DP				0.1
6	END OF BOREHOLE @ 6.0ft BGS	693.71						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-73/PZ18-73
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	709.65						
2	SM-SILTY SANDS, trace clays and fine gravels, loose, fine to medium grained, poorly graded, dark brown, moist - brown at 0.8ft BGS			1DP (0-2', -344)				0.2
4	- orange-brown oxidation at 3.8ft BGS			2DP				0.3
6	- brown, slight petroleum-like odor at 5.5ft BGS - gray, very moist, moderate petroleum-like odor at 6.8ft BGS		2" BOREHOLE 1" PVC WELL SCREEN	3DP (5-7', -345)				68.3
8	- saturated, black, sheen on water at 7.0ft BGS	701.65		4DP				38.3
10	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist, slight petroleum-like odor - no odor at 9.0ft BGS		BENTONITE CHIPS	5DP				12.8
12				6DP				0.2
14	END OF BOREHOLE @ 13.0ft BGS	696.65						
16	NOTE: SOIL BORING COMPLETED MAY 24, 2004, TEMPORARY MONITORING WELL COMPLETED SEPTEMBER 8, 2004							
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
705.65 to 700.65ft BGS
4.00 to 9.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-74
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.03						
0	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist		2" BOREHOLE; BENTONITE CHIPS	1DP (0-2' -341)				2.2
2				2DP				1.2
4				3DP				0.7
6	END OF BOREHOLE @ 6.0ft BGS	693.03						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-75
DATE COMPLETED: May 19, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	698.72						
0	CL-SANDY CLAYS, trace to with silts, firm, low plasticity, fine sands, gray, moist		2" BOREHOLE	1DP 0-2' -342				3.8
2				2DP				2.1
4	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	695.22	BENTONITE CHIPS					
6	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	693.72 693.22		3DP 4-5' -343				2.0
	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray			4DP				1.8
8	END OF BOREHOLE @ 8.0ft BGS	690.72						
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-76
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.51						
0	SM-SILTY SANDS, trace clays and fine gravels, loose, fine to coarse grained, poorly graded, dark brown, moist							
2	- brown at 0.8ft BGS			1DP 0-2' -349				0.2
4	- fine grained, light brown, oxidation, orange banding at 3.5ft BGS		2" BOREHOLE					
6								
8				2DP				0.2
10			BENTONITE CHIPS					
12	- very moist at 11.8ft BGS - saturated, brown-gray at 12.3ft BGS			3DP 10-12' -350				0.4
14								
16	- gray at 15.0ft BGS							
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	697.51		4DP				0.2
20	END OF BOREHOLE @ 20.0ft BGS	694.51						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-77
DATE COMPLETED: May 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.68						
0	ASPHALT, black	714.43						
	SM-SILTY SANDS, trace fine gravels, loose, fine to coarse grained, poorly graded, brown, moist			1DP (0-2' -351)				9.7
4	- fine to medium grained, light brown, oxidation at 4.3ft BGS		2" BOREHOLE					
6	- with clays, brown, very moist at 6.3ft BGS							
8	ML/CL-CLAYS AND SILTS, firm, low plasticity, brown and gray mottled, moist	706.93 706.68		2DP (9-10' -352)				30.8
	SM-SILTY SANDS, compact, fine grained, poorly graded, gray-brown, very moist							
10	- light brown, oxidation at 9.5ft BGS	704.68 704.18	BENTONITE CHIPS					
	CL-SILTY CLAYS, firm, low plasticity, gray, moist							
12	SM-SILTY SANDS, compact, fine grained, poorly graded, gray-brown, very moist			3DP				6.4
14	- saturated at 11.0ft BGS							
16		698.18						
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist			4DP				0.6
20	END OF BOREHOLE @ 20.0ft BGS	694.68						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-78
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	711.93						
0	SW-SANDS (topsoil), fine to medium sands, brown, moist	711.63						
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist		2" BOREHOLE	1AL		95		0.0
4			BENTONITE CHIPS	2AL		95		0.0
6	SM-SILTY SANDS, trace fine sands, compact, gray, moist	705.93		3AL		95		0.0
8	SP/SM-SANDS, fine grained, with some silts, poorly graded, compact, gray, moist	704.43		4AL		95		0.0
10	- wet at 9.3ft BGS		▽					
12	CI-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist	700.93		5AL		95		0.0
14				6AL		95		0.0
16	END OF BOREHOLE @ 15.0ft BGS	696.93						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-79
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	712.78
0	SW-SANDS (topsoil), fine to medium sands, well graded, dark brown, moist	
2		710.78
	SP-SANDS, fine grained, poorly graded, compact, medium brown	
	- oxidation staining at 3.5ft BGS	
4		
6	- trace coarse sands at 6.0ft BGS	
8		704.78
	SC-SANDY CLAYS, with silts, trace plasticity, semi-competent, brown, moist	
	- increase in moisture content at 10.8ft BGS	
10		701.88
	SW-SANDS, fine to medium sands, well graded, dense, brown, wet	701.38
12	SC-SANDY CLAYS, with silts, fine grained, very dense, trace plasticity, gray, wet	700.58
	SP-SANDS, poorly graded, fine grained, trace medium sands, compact, brown, wet	
14	- orangish brown staining at 13.0ft BGS	697.78
	- black staining at 13.1ft BGS	
16	- grayish black staining at 13.2ft BGS	696.78
	- grayish at 13.3ft BGS	
	- becoming brown at 14.0ft BGS	
18	- trace coarse sands, brown oil product at 14.5ft BGS	
	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray brown, moist	
20	END OF BOREHOLE @ 15.0ft BGS	
22		
24		
26		
28		
30		
32		
34		

BOREHOLE INSTALLATION: 2" BOREHOLE; BENTONITE CHIPS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		95		0.0
2AL		95		0.0
3AL		95		0.0
4AL		95		10
5AL		95		781
6AL		95		2000

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Kaiser–Frazer Dump Area PAOC 18 Approx. 10' south of fence and 75' east of gridline A+00 (see Weston Map – Figure 1) Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 9, 1996	
BORING NO.: SB–18–8	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 12.25' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Sunny, 28°, Wind – West 10 mph	

SAMPLE NO.		DEPTH FROM	DEPTH TO	Lead–7420 PAH–8100 Immunoassay PAH	SOIL DESCRIPTION AND BORING LOG
1		2"	8"	Pb, PAH IPAH	0–2" Asphalt 2"–1' Silty sand, some gravel, dark yellowish brown (10YR 4/2) well sorted.
2		8"	2.2'	Pb, PAH IPAH	1'–3' Silty clay, little sand, dusky brown (5YR 2/2).
3		2.2'	4.2'	Pb, PAH IPAH	3'–5' Same as 1'–3' except dark yellowish orange (10YR 6/6).
4		4.2'	6.2'	Pb IPAH	5'–7' Sandy silt, same color.
5		6.2'	8.2'	Pb IPAH	7'–8' Silty clay, same color, wet, plastic.
6		8.2'	10.2'	Pb IPAH	8'–11' Silty sand, same color.
7		10.2'	12.2'	Pb IPAH	11'–12.2' Sand, fine–medium grained, same color, moist–wet.
					End of boring = 14' BGS

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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Note: Driller said 0'–1' is very soft (below asphalt), 25% recovery from 0–4' below asphalt.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-80
DATE COMPLETED: August 23, 2004
DRILLING METHOD: GEOPROBE/DIRECT PUSH/MACRO CORE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	708.30						
0	SW-SANDS (topsoil), fine to medium sands, trace vegetation, well graded, loose, dark brown, moist	707.90	2" BOREHOLE	1AL		98		0.0
2	SP-SANDS (FILL), medium grained, trace fine sands, poorly graded, compact, light brown, moist							
4	- oxidation staining at 4.0ft BGS		BENTONITE CHIPS	2AL		98		0.0
6	- wet at 6.0ft BGS			3AL		95		458
	- becoming gray at 7.0ft BGS							
8	- multicolored sheen at 7.5ft BGS							
	- brown at 8.8ft BGS	699.30		4AL		95		952
10	CI-SILTY CLAYS (TILL), firm, low plasticity, gray, moist	698.30						
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-81
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.18						
0	SW-SANDS (topsoil), fine to medium grained, some vegetation, well graded, dark brown, moist	712.68		1AL		95		0.0
2	SP-SANDS, fine grained, poorly graded, compact, medium brown, moist		2" BOREHOLE					
4			BENTONITE CHIPS	2AL		95		0.0
		707.98						
6	SP/SM-SANDS, some silts, very fine grained, poorly graded, brown, moist			3AL		95		5.2
8	- 0.1' silty clay seam, gray at 8.1ft BGS			4AL		95		4.1
	- 0.1' silty clay seam, gray at 9.4ft BGS							
10	- becoming black at 10.0ft BGS	703.48	▽					
	SP-SANDS, fine grained, poorly graded, compact, gray			5AL		95		>2000
12	- sheeny, multicolored, strong odor at 11.5ft BGS							
14	- black (foundry sand), strong odor at 14.0ft BGS			6AL		95		>2000
		698.68						
	CI-SILTY CLAYS (till), trace fine sands, stiff, low plasticity, competent	698.18						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-82
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.27						
0	SW-SANDS (topsoil), fine to medium sands, well graded, trace vegetation, loose, dark brown, moist	712.97		1AL		100		0.0
2	SP-SANDS, fine grained, poorly graded, loose, brown, moist		2" BOREHOLE					
4	- trace silts at 4.0ft BGS - dark orange color at 4.7ft BGS		BENTONITE CHIPS	2AL		100		0.0
6				3AL		100		--
8				4AL		90		--
10	- oxidation banding at 8.9ft BGS - becoming grayish, faint odor at 10.1ft BGS - wet, faint odor at 10.5ft BGS			5AL		90		--
12								
14	- black, foundry sand, strong odor at 14.4ft BGS	698.67		6AL		90		--
16	CI-SILTY CLAYS, trace fine sands, stiff, low plasticity, competent, gray, moist END OF BOREHOLE @ 15.0ft BGS	698.27						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-83
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	707.95						
0	SW-SANDS (topsoil), fine to medium sands, trace vegetation, well graded, compact, dark brown, moist			1AL		100		--
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist	705.95	2" BOREHOLE					
4			BENTONITE CHIPS	2AL		100		--
	- wet at 5.0ft BGS		▽					
6	- black staining, strong odor at 6.0ft BGS			3AL		100		--
8	- brown oily product, liquid, strong odor at 8.0ft BGS	699.45		4AL		100		--
	CL-SILTY CLAYS (native), trace sands, stiff, competent, low plasticity, gray, moist							
10	END OF BOREHOLE @ 10.0ft BGS	697.95						
12								
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-84
DATE COMPLETED: August 23, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.63						
0	SW-SANDS (topsoil), fine to medium sands, trace vegetation, well graded, compact, dark brown, moist			1AL		100		--
2	SP-SANDS, fine and medium sands, poorly graded, dense, brown, moist	704.83	2" BOREHOLE					
4	- wet at 4.0ft BGS - becoming black and gray, faint odor at 4.5ft BGS		▽ BENTONITE CHIPS	2AL		100		--
6				3AL		100		--
8	- black foundry sands, strong odor, sheeny at 7.3ft BGS	698.63		4AL		100		--
10	CI-SILTY CLAYS, trace fine sands, compact, stiff, low plasticity, gray, moist END OF BOREHOLE @ 10.0ft BGS	696.63						
12								
14								
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-85
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	710.43						
0	SW-SANDS (FILL), fine to medium sands, well graded, trace vegetation, loose, dark brown, moist		2" BOREHOLE	1AL		90		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, compact, light brown, moist	708.23						
4	- trace silts at 4.3ft BGS	705.93	BENTONITE CHIPS	2AL		90		0.0
	SM-SILTY SANDS (FILL), some fine sands, compact, gray brown, moist	704.93						
6	SP-SANDS, fine grained, trace medium grained, poorly graded, medium brown, very moist		▽	3AL		95		27.1
8	- wet at 6.0ft BGS - light brown banding at 6.5ft BGS - becoming gray at 7.5ft BGS			4AL		95		44.2
10				5AL		100		75
12	- very sheeny, strong odor at 12.1ft BGS - multicolored, sheeny at 12.5ft BGS	697.83						
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist END OF BOREHOLE @ 14.0ft BGS	696.43		6AL		100		139
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-86
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	707.33						
0	SW-SANDS (topsoil), fine to medium sands, trace vegetation, compact, dark brown, moist	707.03						
2	SP-SANDS (FILL), medium grained, poorly graded, loose, medium brown, moist		2" BOREHOLE	1AL		90		0.0
4			BENTONITE CHIPS	2AL		90		0.0
6	- wet at 5.6ft BGS	701.63		3AL		95		66
8	SM-SILTY SANDS (FILL), trace fine and medium sands, weathered, reworked, compact, black - sheeny, strong odor at 6.2ft BGS - black foundry sand, sheeny, strong odor at 6.5ft BGS	700.33		4AL		95		59
10	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist END OF BOREHOLE @ 10.0ft BGS	697.33						
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-87/PZ18-87
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.08						
2	SW-SANDS (FILL), fine to medium sands, well graded, loose, dark brown, moist - wet at 2.0ft BGS	700.78	BENTONITE CHIPS 3" BOREHOLE	1AL		100		0.0
4	SC/CL-SANDS AND SANDY CLAYS (FILL), reworked, weathered, trace medium sands, trace plasticity, olive-gray, moist	697.88	1" PVC WELL SCREEN NATURAL COLLAPSE/ SAND	2AL		100		0.0
6	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist			3AL		100		0.0
8	END OF BOREHOLE @ 7.5ft BGS	695.58						
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26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
702.08 to 697.08ft BGS
1.00 to 6.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
702.08 to 695.58ft BGS
1.00 to 7.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-88
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	707.08						
0	SW-SANDS (FILL), fine to medium grained, well graded, loose, trace vegetation, medium brown, moist		2" BOREHOLE	1AL		95		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist	705.48	BENTONITE CHIPS	2AL		95		0.0
4			▽					
6	SM-SILTY SANDS (FILL), some fine sands, trace clays, poorly graded, compact, brown - black foundry sand, slight odor at 6.1ft BGS	701.38 700.88		3AL		95		0.0
8	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, competent, gray, moist			4AL		95		0.0
10	END OF BOREHOLE @ 10.0ft BGS	697.08						
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-89
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.08						
0	SW-SANDS (FILL), fine to medium grained, well graded, trace vegetation, rootlets, loose, dark brown, moist		2" BOREHOLE; BENTONITE CHIPS	1AL		95		0.0
4	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist	710.48		2AL		95		0.0
6	- 0.3' layer silty sands at 7.1ft BGS			3AL		95		0.0
8	- 0.4' silty clay seam at 8.9ft BGS			4AL		95		36
10	- wet at 11.0ft BGS			5AL		95		191
12	- becoming gray at 13.0ft BGS							
14	- sheeny, black at 13.6ft BGS - sheeny, black at 14.3ft BGS	699.58		6AL		95		274
16	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity	699.08						
	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology

DATE: December 10, 1996

BORING NO.: SB-18-9

RECORDED BY: Alan Fass

DRILL TYPE: Hand Auger

WEATHER: Cloudy, 37°, Wind - West <5 mph

LOCATION: Kaiser-Frazer Dump Area PAOC 18
Approx. 33' north of fence and 106' east of gridline A+00 (see Weston Map - Figure 1)
Willow Run
GM Willow Run Facility
Ypsilanti Township, Michigan

WATER TABLE: Approx. 6' BGS

COMMENTS:

SAMPLE NO.		DEPTH FROM	DEPTH TO	Test Type	Lab/Field SOIL DESCRIPTION AND BORING LOG
1		0"	6"	Pb, PAH IPAH	0-2' Silty sand/clayey sand, some gravel, concrete debris, iron slag, debris, dark yellowish brown (10YR 4/2)
2		6"	2'	Pb, PAH IPAH	
3		2'	4'	Pb, PAH IPAH	2'-5' Gravelly sand, some silt, dark yellowish brown concrete debris, paint sludge (hardened) - green and yellow fragments, glass debris, plastic, debris.
4		4'	6'	Pb, PAH IPAH PAH - Lab	Hydrocarbon odors noted in soils from 5'-7' BGS.
					End of boring = 7' BGS

REMARKS

SS - Split Spoon

BLS - Below Land Surface

NR - Not Recorded

m:\480\02570266.wk3

Spent 45 minutes securing safety lines and leveling the soils in the work area along the slope.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-90
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.49						
0	SW-SANDS (FILL), fine to medium sands, trace rootlets, well graded medium brown, moist		2" BOREHOLE	1AL		95		0.0
2		711.89	BENTONITE CHIPS					
2	SP-SANDS (FILL), fine grained, poorly graded, compact, light brown, moist			2AL		95		0.0
4								
6	- orangish brown at 6.2ft BGS			3AL		90		0.0
8				4AL		90		0.0
10	- very moist at 10.0ft BGS							
10	- wet at 11.0ft BGS		▽	5AL		95		--
12	SM-SILTY SANDS, some fine sands, poorly graded, trace clays, compact, brown, wet	702.79 701.99						
12	SW-SANDS, fine to coarse grained, well graded, compact, gray, wet			6AL		95		--
14	- sheeny, black foundry sand at 13.0ft BGS							
14	- black foundry sand, strong odor at 14.0ft BGS							
16	- brown oily liquid (product) at 15.0ft BGS			7AL		95		--
16		697.49						
18	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray	696.99						
18	END OF BOREHOLE @ 17.5ft BGS							
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-91
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.98						
2	SW-SANDS (FILL), fine to medium grained, well graded, trace concrete material, grayish brown, moist		2" BOREHOLE	1AL		90		--
		712.38						
4	SP-SANDS (FILL), fine grained, poorly graded, compact, medium brown, moist		BENTONITE CHIPS	2AL		90		--
6				3AL		100		--
8	- rust brown at 8.5ft BGS			4AL		100		--
10	- increase in moisture at 10.0ft BGS			5AL		100		--
12	- wet at 12.0ft BGS		▽					
		702.68						
14	SM-SILTY SANDS, trace fine and medium sands, trace clays, semi-competent, gray, wet - strong odors, black foundry sand at 13.6ft BGS	700.98		6AL		100		--
	- trace oily product at 14.1ft BGS							
16	SP-SANDS, fine grained, poorly graded, trace medium sands, gray black, wet, strong odors			7AL		100		--
	- saturated oily product, brown, strong odor at 15.0ft BGS	697.48						
18	CI-SILTY CLAYS (native), trace fine sands, compact, competent, low plasticity, gray, moist	696.98						
20	END OF BOREHOLE @ 18.0ft BGS							
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24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-92
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.00						
0	SW-SANDS (FILL), fine to medium grained, some vegetation, loose, dark brown	704.90	2" BOREHOLE	1AL		100		--
2	SP-SANDS (FILL), fine grained, poorly graded, medium brown, moist - wet at 2.5ft BGS							
4	- sheeny, black foundry sand, strong odor at 4.0ft BGS		BENTONITE CHIPS	2AL		100		--
6	- oily brown liquid (product) at 5.5ft BGS			3AL		100		--
8	CL-SILTY CLAYS (native), trace fine sands, stiff, compact, competent, low plasticity, gray	699.00		4AL		100		--
10	END OF BOREHOLE @ 10.0ft BGS	696.00						
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-93
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	704.20						
0	SP-SANDS (FILL), fine grained, poorly graded, loose, brown, moist		▽ 2" BOREHOLE	1AL		50		--
4	- black foundry sand, strong odor at 3.7ft BGS	700.20	BENTONITE CHIPS	2AL		90		--
	CI-SILTY CLAYS (native), stiff, low plasticity, competent, gray, moist	699.20						
6	END OF BOREHOLE @ 5.0ft BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-94
DATE COMPLETED: August 24, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.11						
0	SW-SANDS (FILL), fine to medium grained, trace vegetation, loose, medium brown, moist			1AL		80		--
2	- wet at 1.8ft BGS		▽ 2" BOREHOLE					
4	SP-SANDS (FILL), fine grained, poorly graded, dense, brown, wet	701.81	BENTONITE CHIPS	2AL		80		--
	- black foundry sand, sheeny, strong odor at 4.3ft BGS	700.51						
6	CI-SILTY CLAYS (native), stiff, low plasticity, competent, gray, moist	700.11						
8	END OF BOREHOLE @ 5.0ft BGS							
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24								
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-95
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	712.50						
0	SW-SANDS (FILL), fine to medium grained, trace vegetation, well graded, loose, dark brown, moist	711.40	2" BOREHOLE	1AL		75		0.0
2	SP-SANDS (FILL), fine grained, poorly graded, loose, light brown, moist		BENTONITE CHIPS					
4				2AL		75		0.0
5	- very loose, trace silts at 5.0ft BGS							
6				3AL		75		0.0
8	- rust brown, trace silts at 8.2ft BGS							
	- oxidation bonding at 9.2ft BGS			4AL		80		0.0
10	- very moist at 10.0ft BGS		▽					
	- becoming dark or brown, gray, wet at 10.2ft BGS			5AL		80		641
12	- trace oily product at 11.0ft BGS	700.50						
	- black foundry sand, strong odor at 11.8ft BGS	699.50						
14	CI-SILTY CLAYS (native), trace fine sands, compact, low plasticity, gray, moist							
	END OF BOREHOLE @ 13.0ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

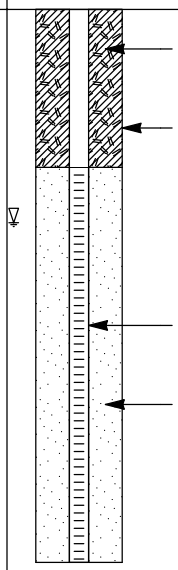
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-96/PZ18-96
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	709.17
0	SW-SANDS (FILL), fine to medium sands, trace vegetation, well graded, loose, dark brown, moist	707.97
2	SP-SANDS (FILL), fine grained, poorly graded, loose, intermittent oxidation banding, rust brown, moist	
4		
6	- wet at 5.4ft BGS - some foundry sand, black, sheeny at 5.5ft BGS	
8	- trace oily droplets, brown, strong odor at 8.0ft BGS - becoming dark brown, strong odors at 8.8ft BGS	
10	- foundry sand, black at 9.8ft BGS	699.07
12	CI-SILTY CLAYS (native), trace fine sands, compact, low plasticity, gray, moist	
14	END OF BOREHOLE @ 13.0ft BGS	696.17
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
705.17 to 695.17ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
705.17 to 695.17ft BGS
4.00 to 14.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		70		0.0
2AL		70		8
3AL		85		>2000
4AL		85		649

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-97/PZ18-97
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	700.58						
2	SW/SC-SANDS AND SANDY CLAYS, fine and medium sands, trace rootlets, well graded, trace plasticity, dark brown, very moist to wet		BENTONITE CHIPS	1AL		90		0.0
	- black staining, weathered, reworked clay at 3.0ft BGS	697.48	2" BOREHOLE 1" PVC WELL SCREEN	2AL		90		1.6
4	CI-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist		NATURAL COLLAPSE/SAND					
	- weathered, olive gray at 4.3ft BGS			3AL		90		3.1
6	END OF BOREHOLE @ 6.0ft BGS	694.58						
8	NOTE: SOIL BORING COMPLETED ON AUGUST 25, 2004, TEMPORARY MONITORING WELL COMPLETED ON SEPTEMBER 8, 2004							
10			WELL DETAILS Screened interval: 699.58 to 694.58ft BGS 1.00 to 6.00ft BGS Length: 5ft Diameter: 1in Slot Size: 0.010 Material: PVC Sand Pack: 699.58 to 694.58ft BGS 1.00 to 6.00ft BGS					
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-98
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.75						
2	SW/SC-SANDS AND SANDY CLAYS, fine and medium sands, trace rootlets, well graded, trace plasticity, dark brown, very moist to wet		2" BOREHOLE	1AL				1.1
		696.75						
4	CI-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist - black staining, weathered, reworked clay at 3.9ft BGS		BENTONITE CHIPS	2AL				1.0
6	- weathered, olive gray at 4.2ft BGS	693.75						
	END OF BOREHOLE @ 6.0ft BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-99
DATE COMPLETED: August 25, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	699.53						
0	SW/SC-SANDY CLAYS, fine to medium grained, some clays, well graded, trace plasticity, brown, wet - trace foundry sand at 2.1ft BGS		2" BOREHOLE	1AL		80		0.1
4	CI-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	696.43	BENTONITE CHIPS	2AL		80		0.3
6	END OF BOREHOLE @ 6.0ft BGS	693.53		3AL		80		0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-01
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
36						100		0.0
38				8MC		100		0.0
40	- trace coarse grained gravels at 39.0ft BGS					100		0.0
42				9MC		100		0.0
44						100		0.0
46								
48				10MC		100		0.0
50	END OF BOREHOLE @ 50.0ft BGS	664.77				100		0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-01
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	714.77						
0	ASPHALT	714.47						
	GW-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained angular, well graded, light gray, damp	713.77						
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, dark brown, moist	712.47		1MC 0-2' -231 -232		90		0.0
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, damp - with silts at 4.4ft BGS		4" PVC CASING			90		0.0
6								
8	- trace fine grained rounded gravels, moist at 7.0ft BGS - trace silts, gravel not present at 8.0ft BGS			2MC		100		0.0
10	- medium grained, trace fine grained rounded gravels at 9.5ft BGS		CEMENT BENTONITE GROUT	10-12' -233		100		0.0
12	- wet at 12.0ft BGS			3MC		100		0.0
14	- fine grained, gravel not present, gray at 13.4ft BGS		BACKFILLED WITH CEMENT BENTONITE GROUT			100		0.0
16	CI-SILTY CLAY, trace fine grained rounded gravels (natural), stiff, medium plasticity, gray, moist	698.77	CLAY	4MC		100		0.0
18	- 2" lens wet sands at 16.5ft BGS - 1.5" lens wet sands at 17.0ft BGS							
20	- 2" lens wet sands at 18.1ft BGS - trace fine grained rounded gravels, trace sands at 18.8ft BGS - 3" lens wet sandy silts at 20.5ft BGS		2-1/2" BOREHOLE			100		0.0
22			BACKFILLED WITH CEMENT BENTONITE GROUT	5MC		100		0.0
24						100		0.0
26				6MC		100		0.0
28								
30						100		0.0
32				7MC		100		0.0
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-02
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
36	- sandy clay, very moist to wet at 35.2ft BGS - silty clay, trace fine grained gravels, moist at 36.0ft BGS					100		0.0
38	- trace coarse grained gravels at 38.5ft BGS			8MC		100		0.0
40						100		0.0
42				9MC		100		0.0
44						100		0.0
46								
48				10MC		100		0.0
50	END OF BOREHOLE @ 50.0ft BGS	665.96				100		0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-02
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	715.96						
0	ASPHALT	715.56						
	GW-SANDS AND GRAVELS, trace silts (FILL), compact, fine grained, angular, poorly graded, light gray, dry	715.06						
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, dark brown, moist	712.96		1MC 0-2' -234		70		0.0
4	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, yellowish brown, moist		4" PVC CASING			70		0.0
6	- 1" lens silts at 6.2ft BGS							
	- light brown at 7.2ft BGS			2MC 8.5-10.5 -235		100		0.0
8	- 2" lens fine grained gravels at 8.4ft BGS							
10	- wet at 10.5ft BGS		CEMENT BENTONITE GROUT			100		0.0
	- 2" lens silty sands at 10.8ft BGS			3MC		90		0.0
12			BACKFILLED WITH CEMENT BENTONITE GROUT					
14						90		0.0
16								
	CI-SILTY CLAY, trace fine grained sands, trace fine grained rounded gravels, stiff, medium plasticity, gray, moist, homogeneous	699.26		4MC		100		0.0
18	- 1" lens sands and gravels at 17.1ft BGS		CLAY					
20			2-1/2" BOREHOLE			100		0.0
22			BACKFILLED WITH CEMENT BENTONITE GROUT	5MC		100		0.0
24						100		0.0
26								
28				6MC		100		0.0
30						100		0.0
32				7MC		100		0.0
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-03
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
36						100		0.0
38				8MC		100		0.0
40						100		0.0
42	- trace coarse grained gravels at 42.5ft BGS			9MC		100		0.0
44						100		0.0
46								
48				10MC				0.0
50	END OF BOREHOLE @ 50.0ft BGS	666.86						0.0
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-03
DATE COMPLETED: November 17, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	716.86						
0	ASPHALT	716.46						
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, poorly graded, light brown, dry	715.86						
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist			1MC 0-2' -229		80		0.0
4	- 1/2" piece slag at 4.1ft BGS		4" PVC CASING			80		0.0
6								
8	- 3" lens clayey sands, very moist at 8.0ft BGS - medium grained, grayish brown at 8.5ft BGS			2MC 7.5-9.5' -230		90		0.0
10	- wet at 9.5ft BGS - fine grained at 10.0ft BGS		CEMENT BENTONITE GROUT			90		0.0
12				3MC		100		0.0
14	- dark gray at 13.0ft BGS		BACKFILLED WITH CEMENT BENTONITE GROUT			100		0.0
16	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist, homogeneous	700.76	CLAY	4MC		100		0.0
18								
20			2-1/2" BOREHOLE			100		0.0
22			BACKFILLED WITH CEMENT BENTONITE GROUT	5MC		100		0.0
24						100		0.0
26				6MC		100		0.0
28								
30						100		0.0
32				7MC		100		0.0
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-04
DATE COMPLETED: November 21, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.16						
0	ASPHALT	714.96	2" BOREHOLE					
	GM-SILTY GRAVELS, (FILL), compact, fine grained, poorly graded angular, light gray, moist	713.96						
2	SP-SANDS, trace silts (FILL), loose, fine grained, poorly graded, light brown, moist		BENTONITE CHIPS	1MC		70		0.0
4	- 2" lens trace glass at 3.0ft BGS - 1" lens slag at 3.8ft BGS - steel shavings at 5.0ft BGS					70		0.0
6	- loose to very loose at 6.0ft BGS							
8				2MC		20		0.0
10						20		0.0
12	- wet at 12.0ft BGS			3MC		80		0.0
14						80		0.0
16								
18	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist	698.16		4MC		90		0.0
20	END OF BOREHOLE @ 20.0ft BGS	695.16				90		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-05
DATE COMPLETED: November 13, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	703.49					
0	CL/CI-SILTY CLAYS, trace sands and fine gravels, trace rootlets, firm, low plasticity, dark brown, moist		1AL				1.8
2	- gray-brown at 0.75ft BGS		2AL				0.0
4	- soft, low to medium plasticity, gray at 4.5ft BGS		3AL				0.4
6			6-8' -212				
	CL-SANDY CLAYS, with silts, trace fine gravels, soft, low plasticity, dark gray to black, moist to very moist fine to coarse grained sands, slight petroleum-like odor	696.74	4AL				13.8
8							
	SC-CLAYEY SANDS, trace silts and fine gravels, loose, soft, fine to coarse grained, poorly graded, dark brown, very moist to saturated, slight petroleum-like odor	694.49	5AL				1.9
10			6AL				1.8
	CL-SILTY CLAYS, trace medium sands, soft to firm, low plasticity, green-gray, moist	692.24					
12	END OF BOREHOLE @ 12.0ft BGS	691.49					
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-06
DATE COMPLETED: November 13, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.11					
0	CL/CI-SILTY CLAYS, trace sands and fine gravels, firm, low plasticity, dark brown, moist - gray-brown at 0.5ft BGS - soft, low to medium plasticity at 2.0ft BGS - gray at 2.5ft BGS		1AL				0.3
2			2AL				0.2
4	SM/SC-SANDS with SILTS and CLAYS, loose, fine to coarse grained, poorly graded, dark brown to gray, saturated, non plastic, slight petroleum-like odor	701.61	3AL				12.8
6	- black staining, sheen, moderate petroleum-like odor at 7.0ft BGS		4AL				23.8
8	CL-SANDY CLAYS, with silts, soft to firm, low plasticity, gray, moist, fine grained sands, trace organics, wood	698.11	5AL				0.8
10	CL-SILTY CLAYS, trace coarse sands, firm, low plasticity, gray, moist	696.61	6AL				0.1
12	END OF BOREHOLE @ 12.0ft BGS	694.11					
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-07
DATE COMPLETED: November 13, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.25					
0	CL-SILTY CLAYS, trace sands and fine gravels, firm, low plasticity, dark brown, moist		1AL				0.3
2	- gray-brown at 0.5ft BGS		2AL				0.2
4	CL-SANDY CLAYS, with silts, trace fine gravels, soft to firm, low plasticity, fine to coarse sands, brown, moist	700.75	3AL				0.4
6			4AL				0.3
8	PT-PEAT, black, wood fragments, with silts and sands	696.75					
	SM/SC-SANDS with SILTS and CLAYS, trace fine gravels, loose, fine to coarse grained, poorly graded, gray-brown, saturated	696.25	5AL				1.7
10	- dark gray, organic odor at 10.8ft BGS	694.25	6AL				0.2
12	CL-SILTY CLAYS, trace coarse sands, firm, low plasticity, gray, moist						
14	END OF BOREHOLE @ 14.0ft BGS	691.25					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-08
DATE COMPLETED: November 13, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	706.69					
0	CL-SILTY CLAYS, trace sands and fine gravels, firm, low plasticity, dark brown, moist		1AL				0.2
2	- gray-brown at 0.75ft BGS		2AL				0.3
4			3AL				0.1
6	SC-CLAYEY SANDS, with silts, trace fine gravels, soft to firm, low plasticity to non plastic, fine to coarse sands, brown-gray, moist to very moist	701.44	4AL				0.4
8			5AL				0.6
10			6AL				0.3
12	PT-PEAT, black, wood fragments, with silts and sands	695.44					
	SC-CLAYEY SANDS, with silts, trace fine gravels, soft to firm, low plasticity to non plastic, fine to coarse sands, brown-gray, moist to very moist	694.94					
14	CL-SILTY CLAYS, trace coarse sands, firm, low plasticity, brown and gray mottled, moist	693.94	7AL				0.4
	END OF BOREHOLE @ 14.0ft BGS	692.69					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-09
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.24						
0	ML-SILTS, with sands, trace clay, trace rootlets and organics (topsoil), loose, fine grained, poorly graded, dark brown, moist	712.74	2" BOREHOLE					
2	ML/CL-CLAYEY SILTS, trace sands (FILL), loose, fine grained, poorly graded, gray, damp		BENTONITE CHIPS	1MC 0-2' -234		50		0.0
4						50		0.0
6		706.74						
8	SP-SANDS, with silts, trace fine grained rounded gravels (FILL), loose, fine grained, poorly graded, brown, dry - trace wood at 7.5ft BGS			2MC		75		0.0
10	- trace concrete and brick at 8.5ft BGS	704.14				75		0.0
12	ML-SILTS, with sands, trace organics (topsoil) (FILL), loose, fine grained, poorly graded, dark brown, moist, faint odor	702.74		3MC		75		0.0
14	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, gray, moist - wet at 11.0ft BGS	700.54				75		0.0
16	CI-SILTY CLAY (natural), firm, medium plasticity, gray, moist, homogeneous							
18				4MC		100		0.0
20	END OF BOREHOLE @ 20.0ft BGS	693.24				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-10
DATE COMPLETED: November 21, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.72						
0	ASPHALT	715.52	2" BOREHOLE					
2	GM-SILTY GRAVELS, (FILL), compact, fine grained, poorly graded angular, gray, moist - with asphalt pieces at 1.0ft BGS	713.22	BENTONITE CHIPS	1MC		80		0.0
4	SM-SILTY SANDS (FILL), compact, fine grained, poorly graded, very moist, brown	711.72				80		0.0
6	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist	709.72						
	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, brown, moist	708.72						
8	MH-SANDY SILTS, (FILL), compact, fine grained, poorly graded, brown, moist to very moist	707.62		2MC		100		0.0
10	SP-SANDS, trace silts (natural), compact, fine grained, poorly graded, brown, moist					100		0.0
12	- gray, wet at 12.0ft BGS			3MC		70		0.0
14						70		0.0
16	CI-SILTY CLAY, trace fine grained gravels (natural), firm, medium plasticity, gray, moist - 2" lens silts at 17.1ft BGS	700.22		4MC		100		0.0
18	- trace coarse grained gravels at 18.4ft BGS							
20	END OF BOREHOLE @ 20.0ft BGS	695.72				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-11
DATE COMPLETED: November 21, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.60						
0	ASPHALT	715.30	2" BOREHOLE					
	GM-SILTY GRAVELS, (FILL), compact, fine grained, poorly graded, light gray, moist	714.30						
2	SP-SANDS, trace silts (FILL), trace rootlets, compact, fine grained, poorly graded, dark brown, moist		BENTONITE CHIPS	1MC		90		0.0
4	- trace gravels, rootlets not present at 2.0ft BGS - 2" trace glass at 2.3ft BGS					90		0.0
6								
8	- with silts, gravels not present at 7.5ft BGS - 2" lens silty clay at 8.2ft BGS - 2" orange-brown at 8.9ft BGS			2MC		100		0.0
10						100		0.0
12	- medium grained at 12.0ft BGS - fine grained, gray at 12.5ft BGS			3MC		70		0.0
14	- wet at 14.0ft BGS					70		0.0
16	CI-SILTY CLAY, (natural), stiff, medium plasticity, gray, moist	699.60		4MC		100		0.0
18								
20	END OF BOREHOLE @ 20.0ft BGS	695.60				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-12
DATE COMPLETED: November 21, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.06						
0	ASPHALT	714.86	2" BOREHOLE					
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, poorly graded, light brown, moist	713.56						
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist, odor present		BENTONITE CHIPS	1MC -3-5'-239		70		10.8
4	- black staining, slight oily appearance at 4.5ft BGS					70		50.4
6	- staining not present at 5.0ft BGS							
	- stained black, strong odor at 7.0ft BGS							
8	- 1" yellow color at 7.5ft BGS - brown, moist to very moist at 8.0ft BGS			2MC -7-9'-240		70		137
10						70		585
12	- 2" black staining, odor at 12.0ft BGS			3MC		80		361
	- wet at 13.0ft BGS - gray at 13.4ft BGS							
14						80		37.4
16	- 1" black stain at 15.2ft BGS							
18				4MC		100		45.9
	- 2" black stain at 18.8ft BGS	696.06						
20	CI-SILTY CLAY, (natural), firm, medium plasticity, gray, moist, with occasional 1mm thick horizontal silt lenses	695.06				100		18.4
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

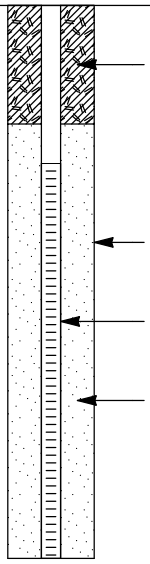
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB18-128/PZ18-128
DATE COMPLETED: September 2, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.12
0	ASPHALT	714.82
2	SW-SANDS (FILL), fine to medium sands, trace fine gravels, well graded, dense, dark brown, moist	
4		
6		
7.5	- debris (glass) at 7.5ft BGS	707.92
8	SP-SANDS, fine grained, trace medium sands, poorly graded, dense, dark brown, moist	
10	SM-SILTY SANDS, with clays, trace fine and medium sands, semi-competent, medium plasticity, soft, brown, moist, strong odor	705.32
12	SP-SANDS (FILL), fine grained, poorly graded, dense, black, wet, strong odor	703.12
12.5	- becoming gray at 12.5ft BGS	701.92
14	CL-SILTY CLAYS (native), trace fine sands, competent, stiff, low plasticity, gray, moist	
15	END OF BOREHOLE @ 15.0ft BGS	700.12
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEMP MONITORING WELL



WELL DETAILS
Screened interval:
711.12 to 701.12ft BGS
4.00 to 14.00ft BGS
Length: 10ft
Diameter: 1in
Slot Size: 0.010
Material: PVC
Sand Pack:
712.12 to 701.12ft BGS
3.00 to 14.00ft BGS

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL				10.1
2AL				36.4
3AL				42.1
4AL				54
5AL				>2000
6AL				>2000
7AL				36.9
8AL				21.1

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-13
DATE COMPLETED: November 21, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.20						
0	ASPHALT	714.90	2" BOREHOLE					
	GM-SILTY GRAVELS, (FILL), compact, fine grained angular, poorly graded, light gray, moist	713.90						
2	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, medium brown, moist		BENTONITE CHIPS	1MC 0-2' -236		60		10.4
4				2-4' -237				
6						60		20.8
	DEBRIS, paper fibers, moist, strong odor	709.20						
	- 3" long piece of steel mixed with yellow stained sand at 7.0ft BGS			2MC 8-10' -238		60		2000+
8	- yellow paint sludge, paper, wood, strong odor at 7.5ft BGS	707.20						
	SM-SILTY SANDS, (FILL), trace paper, compact, fine grained, poorly graded, brown, moist to very moist	705.20				60		2000+
10	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, wet, strong odor							
12	- with silts, gray at 12.0ft BGS			3MC		80		2000+
	- trace black staining at 13.0ft BGS							
14	- brown, trace silts at 13.5ft BGS							
	END OF BOREHOLE @ 15.0ft BGS	700.20				80		2000+
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-14
DATE COMPLETED: November 11, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.19						
0	SP-SANDS, trace silts, trace organics (topsoil) (FILL), loose, fine grained, poorly graded, gray, dry		2" BOREHOLE					
2								
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, orange-brown, damp	711.69	BENTONITE CHIPS	1MC		90		0.0
4						90		0.0
6								
8				2MC		90		0.0
10						90		0.0
	- moist at 11.0ft BGS							
12	- wet at 11.9ft BGS			3MC		100		0.0
	MH-SANDY SILTS (FILL), compact, fine grained, poorly graded, gray, very moist	700.79						
14						100		0.0
16	- wet at 16.3ft BGS	698.19						
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, very moist			4MC		100		0.0
18		695.19						
	CL-SILTY CLAY, (natural), firm, low plasticity, gray, moist, homogeneous							
20	- trace fine grained rounded gravels at 20.0ft BGS					100		0.0
22				5MC		100		0.0
24		689.19						
	END OF BOREHOLE @ 25.0ft BGS							
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-15
DATE COMPLETED: January 12, 2004
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: S. POOLER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	702.72						
0	SP-SANDS, loose, poorly graded, fine grained, brown, moist, trace rootlets	701.72		1HA				
2	CL-SILTY CLAYS, soft, low plasticity, gray, moist		2" BOREHOLE	2HA				0
4								0
	- firm at 5.0ft BGS		BENTONITE CHIPS	3HA				
6	- medium plasticity, wet at 6.5ft BGS			4HA				0
	END OF BOREHOLE @ 7.0ft BGS	695.72						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-16
DATE COMPLETED: November 14, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	705.71					
0	SM-SILTY SANDS, trace clay, compact, fine grained, poorly graded, dark brown, moist		1AL 0-2' -213				0.8
2	- brown with orange streaks, oxidation at 0.25ft BGS						
	- saturated at 3.0ft BGS		2AL				0.4
4			4-6' -214				
	CL-SILTY CLAYS, firm, low plasticity, gray, moist	700.71	3AL				0.4
6							
			4AL				0.2
8	END OF BOREHOLE @ 8.0ft BGS	697.71					
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval) GRAIN SIZE ANALYSIS (rectangle)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-17
DATE COMPLETED: November 14, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	704.39					
0	CL/CI-SILTY CLAYS, trace sands and fine gravels, firm, low plasticity, dark brown, moist, trace rootlets		1AL				0.3
	- gray-brown at 0.5ft BGS						
2	- low to medium plasticity at 3.0ft BGS		2AL				0.2
4	SM/SC-SANDS with SILTS and CLAYS, loose, soft, fine to medium grained, poorly graded, low to non-plastic, brown and gray, very moist to saturated	700.39	3AL				0.3
	- saturated at 5.0ft BGS						
6			4AL				0.3
8	- trace fine gravels at 8.0ft BGS						
	CL-SILTY CLAYS, trace coarse sands, firm, low plasticity, gray, moist	696.14	5AL				0.2
10			6AL				0.1
12	END OF BOREHOLE @ 12.0ft BGS	692.39					
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-27
DATE COMPLETED: February 28, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown, moist	1.50	2" BOREHOLE	1AL		60		43.9
4	SC-CLAYEY SANDS, trace silts and brown subrounded gravels, loose, very fine to fine grained, poorly graded, dark brown, moist	3.00	BACKFILLED WITH BENTONITE CHIPS					27.4
6	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown, moist	4.30						46.4
8	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, brown, moist - trace fine subrounded gravels at 6.5ft BGS	6.60		2AL		70		176
10	SP-SANDS, trace fine subrounded gravels, compact, very fine to fine grained, poorly graded, brown, moist to wet							198
12	- fine to medium grained, dark brown, slight petroleum-like odor at 8.0ft BGS	11.80		3AL		85		453
14	- trace silts, coarse medium grained, grayish brown at 9.0ft BGS							861
16	- coarse with fine well rounded gravels at 11.0ft BGS							240
18	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, gray, wet			4AL		90		1050
20	CI-CLAYS, trace silts, medium plasticity, firm, gray, moist, slight petroleum-like odor	19.20 20.00						247
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-28/MW19-27
DATE COMPLETED: February 28, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	716.90						
0	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete and brick), loose, very fine to fine grained, poorly graded, dark brown to brown, moist	715.40	SAND PACK					67.2
2		714.40	2" PVC WELL CASING	1AL		60		64.7
4	CL-SANDY CLAYS (FILL), trace silts and gravels, low plasticity, firm, brownish gray, moist	712.40	BENTONITE CHIPS					11.4
6	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete and brick), loose, very fine to fine grained, poorly graded, dark brown to brown, moist	710.90	3" BOREHOLE					282
8	SM-SILTY SANDS, compact, poorly graded, very fine to fine grained, tan brown, moist	707.90	▽	2AL		65		217
10	SP-SANDS, trace silts and brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown to black, moist, slight petroleum-like odor							136
12	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet, petroleum-like odor		2" PVC WELL SCREEN	3AL		80		58.3
14	- petroleum-like substance intermixed with water at 15.0ft BGS		SAND PACK					54.9
16								194
18	CH-CLAYS, trace silts, high plasticity ,firm, brownish gray, moist	698.90		4AL		85		157
20	END OF BOREHOLE @ 20.0ft BGS	696.90						
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
709.90 to 697.90ft BGS
7.00 to 19.00ft BGS
Length: 12ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
711.90 to 697.90ft BGS
5.00 to 19.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-31
DATE COMPLETED:
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL-SANDS, trace silts and fine to medium subangular gravel debris (crushed concrete), loose, very fine to medium grained, poorly graded, brown, moist	1.00
	SM-SILTY SANDS, compact ,very fine to fine grained, poorly graded, orange hue, moist	4.80
	SP-SANDS, trace silts and fine subangular gravels, compact, fine to medium grained, poorly graded, orangish brown, moist to wet	
	- fine to coarse grained, trace fine subangular gravels at 9.0ft BGS	
	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	14.60
	END OF BOREHOLE @ 15.0ft BGS	15.00

BOREHOLE INSTALLATION: 2" BOREHOLE; BACKFILLED WITH BENTONITE CHIPS; ▽

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1AL		60		0
				0
				0
2AL		60		0
				0
				0
3AL		70		0
				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-34
DATE COMPLETED:
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	FILL-SANDS, trace silts and fine subangular gravels, debris (crushed concrete), loose, fine to medium grained, poorly graded, brown, moist	1.50	2" BOREHOLE					1.1
4	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, orange, moist		BACKFILLED WITH BENTONITE CHIPS	1AL				60 1.0
6	SP-SANDS, with fine subrounded gravels, trace silts, compact, fine to coarse grained, poorly graded, brown with orange hue, moist to wet	4.80						1.3
8				2AL				1.5 70
10		10.00	▽					2.0
12	SP-SANDS, trace silts, compact, very fine to medium grained, poorly graded, brown to brownish gray, wet							2.1
14				3AL				70 16.8
16	CL-CLAYS, trace silts, medium plasticity, firm, gray, moist	14.40 15.00						147
18	END OF BOREHOLE @ 15.0ft BGS							
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-36
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), trace silts, fine to medium subrounded gravels and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown, moist	1.00	2" BOREHOLE					1.4
2		2.00	BACKFILLED WITH BENTONITE CHIPS	1AL		60		5.3
4	SC-CLAYEY SANDS (FILL), trace silts and fine subrounded gravels, compact, very fine to fine grained, brown grained, poorly graded, brown, moist	4.90						51.9
6	SP-SANDS (FILL), trace silts, fine to medium subrounded gravels and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown, moist	7.00		2AL		80		162
8	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, tan brown, moist		▽					131
10	SP-SANDS, trace fine brown subrounded gravels, loose, fine to medium grained, poorly graded, brown with orange hue and orange staining	10.50						181
12				3AL		80		103
14	SM-SILTY SANDS, compact, poorly graded, very fine to fine grained, gray, wet							149
16								93.7
18				4AL		85		
20	CL-CLAYS, trace silts, medium, plasticity, firm, gray, moist	19.50 20.00						90.2
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-37
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	SP-SANDS (FILL), trace silts and fine subrounded gravels and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown to black, moist	1.20	2" BOREHOLE					4.5
2		1.50		1AL		60		11.0
4	SC-SANDY CLAYS, trace silts, loose, very fine grained, poorly graded, dark brown, moist	4.50	BACKFILLED WITH BENTONITE CHIPS					70.1
6	SP-SANDS (FILL), trace silts and fine subrounded gravels and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown to black, moist, black staining at 1.7', pieces of wood	6.00		2AL		60		90.2
8	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, brown, moist							119
10	SP-SANDS, trace silts, fine to medium subangular to subrounded gravels, compact, fine to medium grained, poorly graded, brown with orange hue, moist							376
12	- with medium to fine to coarse grained, gray at 9.0ft BGS	11.50		3AL		70		234
14	SP-SANDS, trace silts, compact, very fine to fine grained, poorly graded, gray, wet							158
16	- fine grained at 16.5ft BGS							71.8
18	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	17.50		4AL		80		51.8
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-38
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS (FILL), trace silts and brown subrounded gravels and debris (crushed concrete), loose, fine to medium grained, poorly graded, dark brown to brown, moist	1.40	2" BOREHOLE					0.5
	ASPHALT	1.50		1AL		60		0.9
4	CL-SANDY CLAYS (FILL), trace silts and fine subrounded gravels, low plasticity, firm, brownish gray, moist	2.00	BACKFILLED WITH BENTONITE CHIPS					8.7
6	SP-SANDS (FILL)	5.50						
	SM-SILTY SANDS, compact, poorly graded, very fine to fine grained, tan, moist	6.00		2AL		70		20.8
8	SP-SANDS, trace silts, fine brown subrounded gravels, loose, fine to medium grained, poorly graded, brownish gray, petroleum-like rainbow, petroleum-like odor		▽					170
10	- with medium to coarse grained, gray at 9.0ft BGS							27.4
12				3AL		80		47.4
14	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	14.30						241
		15.00						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

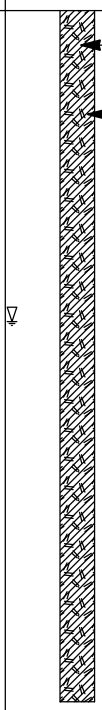
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-39
DATE COMPLETED:
DRILLING METHOD:
FIELD PERSONNEL:

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	CONCRETE	0.60
2	SP-SANDS (FILL), trace silts, brown fine subrounded gravels, debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist	1.60
4	CL-SANDY CLAYS (FILL), trace silts and gravels, low plasticity, firm, brown, moist	3.50
6	SP-SANDS (FILL), trace silts, brown fine subrounded gravels, debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist, strong petroleum-like odor, black staining (rainbow)	5.00 6.50
8	SM-SILTY SANDS, compact ,very fine to fine grained, poorly graded, tan brown, moist	9.00
10	SP-SANDS, trace silts and fine brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown, petroleum-like odor, black staining	
12	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet	
14	- clay lens, trace fine brown subrounded gravel (10-10.2') at 10.0ft BGS	
16		
18	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	18.00
20	END OF BOREHOLE @ 20.0ft BGS	20.00
22		
24		
26		
28		
30		
32		
34		
36		
38		

BOREHOLE INSTALLATION



SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				0.9
1AL		60		63.2
				92.6
2AL		75		71.4
				12.3
				10.8
3AL		80		16.2
				63.3
				19.4
4AL		80		144

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

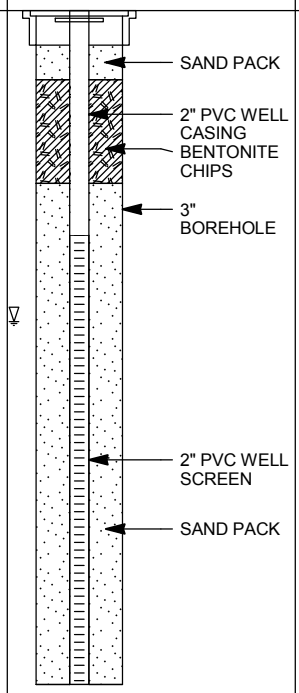
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-40/MW19-28
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist	1.00
	CL-SANDY CLAYS (FILL), trace silts and gravels, low plasticity, firm, brownish gray, moist	2.50
	SP-SANDS (FILL), trace silts, gravel and debris (crushed concrete), loose, very fine to fine grained, poorly graded, dark brown, moist	5.00
	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, tan, moist	6.00
	SP-SANDS, trace silts and brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown, moist	8.00
	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet	13.00
	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, gray, wet	17.00
	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	20.00
	END OF BOREHOLE @ 20.0ft BGS	

MONITORING WELL



WELL DETAILS
Screened interval:
6.50 to 19.50ft BGS
Length: 13ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 19.50ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				2.0
1AL		60		5.3
				13.4
2AL		65		89.8
				16.0
				278
3AL		80		127
				151
4AL		85		125
				33.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-41
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.60	2" BOREHOLE					6.2
2	CL-SANDY CLAYS (FILL), trace silts and gravel, low plasticity, firm, brownish gray, moist		BACKFILLED WITH BENTONITE CHIPS	1AL		60		8.3
4		4.60						3.6
6	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, tan brown, moist	6.50						2.6
8	SP-SANDS, trace silts and fine brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown, orange bands, moist to wet		▽	2AL		65		7.2
10	- fine to coarse grained at 9.0ft BGS	11.00						2.6
12	SP-SANDS, compact, very fine to fine grained, poorly graded, gray, wet, petroleum-like rainbow, small black dots			3AL		70		19.0
14	- clay lens, trace silts and coarse grained sands at 12.0ft BGS							30.1
16								17.1
18		18.50		4AL		80		16.0
20	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-42
DATE COMPLETED: March 2, 2006
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: N. RATHBUN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.60	2" BOREHOLE					0.1
2	CL-SANDY CLAYS (FILL), trace silts ,loose, very fine to fine grained, poorly graded, dark brown, moist, strong petroleum-like odor, black staining		BACKFILLED WITH BENTONITE CHIPS	1AL		60		57.8
4		4.80						162
6	SP-SANDS, with gravels, trace silts, loose, fine to medium grained, fine gravels, poorly graded, black, moist, strong petroleum-like odor	5.90 6.00						35.0
8	SM-SILTY SANDS, compact, very fine to fine grained, poorly graded, tan, moist, slight petroleum-like odor		▽	2AL		70		7.2
10	SP-SANDS, trace silts and brown subrounded gravels, loose, fine to medium grained, poorly graded, dark brown, moist to wet							4.8
12	- coarse grained at 9.0ft BGS	11.00		3AL		60		23.9
14	SP-SANDS, trace silts, compact, very fine to fine, poorly graded, gray, petroleum-like rainbow (15-17')							66.9
16								11.3
18				4AL		80		
20	CH-CLAYS, trace silts, high plasticity, firm, gray, moist	19.00 20.00						57.5
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-43
DATE COMPLETED: May 31, 2007
DRILLING METHOD: 2-1/2" DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	716.90						
	ASPHALT	716.60						
	GM-SILTY GRAVELS, with fine to coarse sands, compact, fine gravels, gray, moist	715.90						
2				1DP		75		0.4
4	SM-SILTY SANDS, trace fine gravels, compact, fine grained ,trace medium to coarse grained, poorly graded, brown, moist	713.15						
6	SP-SANDS, trace silts, compact, fine grained, poorly graded, light brown, moist - orange brown at 4.3ft BGS - brown at 6.0ft BGS		2-1/2" BOREHOLE					
8	- fine to coarse grained, trace fine gravels, light brown at 7.0ft BGS			2DP		75		0.1
10	- banding-orange, brown, light brown at 8.3ft BGS		BACKFILLED WITH BENTONTITE CHIPS					
12	- brown/gray, very moist to saturated at 12.5ft BGS			3DP		75		0.1
14	- gray, saturated at 13.0ft BGS							
16	- fine grained, no gravels at 16.3ft BGS							
18	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist	698.90		4DP		80		0.1
20	END OF BOREHOLE @ 20.0ft BGS	696.90	WELL DETAILS Screened interval: 703.90 to 699.90ft BGS 13.00 to 17.00ft BGS Length: 4ft					
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-44
DATE COMPLETED: May 31, 2007
DRILLING METHOD: 2-1/2" DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	716.98						
	ASPHALT	716.68						
2	SM-SILTY SANDS, with fine gravels, compact, fine to coarse grained, poorly graded, brown, moist			1DP		75		0.1
	- rust brown at 2.5ft BGS	713.73						
4	SP-SANDS, trace silts, compact, fine grained, trace medium to coarse grained, poorly graded, orange brown, moist		2-1/2" BOREHOLE					
6	- light brown at 4.3ft BGS							
	- fine to coarse grained, trace fine gravels, brown at 7.0ft BGS			2DP		75		0.2
8	- banding, light brown, orange brown at 8.5ft BGS							
10	- white to beige at 10.0ft BGS		BACKFILLED WITH BENTONTITE CHIPS					
12				3DP		75		0.1
	- light brown, very moist to saturated at 13.0ft BGS							
14	- 2" CL-SILTY CLAY seam, firm, low plasticity, gray at 13.8ft BGS							
16	- fine grained, brown-gray, saturated at 14.0ft BGS							
	- gray at 15.0ft BGS	700.38		4DP		95		0.0
18	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist							
	- 3" ML-SANDY SILT seam, compact, gray, saturated at 18.7ft BGS	696.98						
20	END OF BOREHOLE @ 20.0ft BGS		WELL DETAILS Screened interval: 704.48 to 700.48ft BGS 12.50 to 16.50ft BGS Length: 4ft					
22								
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-45
DATE COMPLETED: May 31, 2007
DRILLING METHOD: 2-1/2" DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	717.67						
0	ASPHALT	717.37						
2	SM-SILTY SANDS, with fine gravels, compact, fine to coarse grained, poorly graded, brown, moist			1DP		75		0.4
	- trace fine gravels at 1.0ft BGS	714.17						
4	SP-SANDS, trace silts, compact, fine grained, trace medium to coarse grained, poorly graded, light brown, moist		2-1/2" BOREHOLE					
6	- fine to coarse grained, brown, trace fine gravels at 6.5ft BGS			2DP		75		4.8
8								
10	- light brown at 10.0ft BGS		BACKFILLED WITH BENTONTITE CHIPS					
12				3DP		85		0.0
14	- brown-gray, very moist at 13.5ft BGS - saturated at 14.3ft BGS - fine grained at 14.6ft BGS							
16	- 2" CL-SILTY CLAYS, with fine sands seam firm, gray, low plasticity at 16.5ft BGS							
18	- fine grained, trace medium grained to fine gravels at 17.5ft BGS - fine grained at 18.0ft BGS	699.42		4DP		90		0.0
20	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist	697.67						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
704.67 to 700.67ft BGS
13.00 to 17.00ft BGS
Length: 4ft

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-46
DATE COMPLETED: May 31, 2007
DRILLING METHOD: 2-1/2" DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	717.30						
0	ASPHALT	717.00						
2	SM-SILTY SANDS, with fine gravels, compact, fine grained, poorly graded, brown, moist			1DP		75		0.1
4	- orange-brown at 3.5ft BGS							
6	- brown at 6.0ft BGS		2-1/2" BOREHOLE					
8	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist	709.80		2DP		75		0.1
10	- white to beige, some orange banding at 10.0ft BGS		BACKFILLED WITH BENTONTITE CHIPS					
12				3DP		85		0.2
14	- brown-gray, saturated at 13.7ft BGS - light brown, very moist at 13.8ft BGS							
16	- fine grained, trace medium to coarse grained, gray at 15.5ft BGS							
18				4DP		90		0.1
		698.30						
20	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist	697.30						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								
36								
38								

WELL DETAILS
Screened interval:
703.30 to 699.30ft BGS
14.00 to 18.00ft BGS
Length: 4ft

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

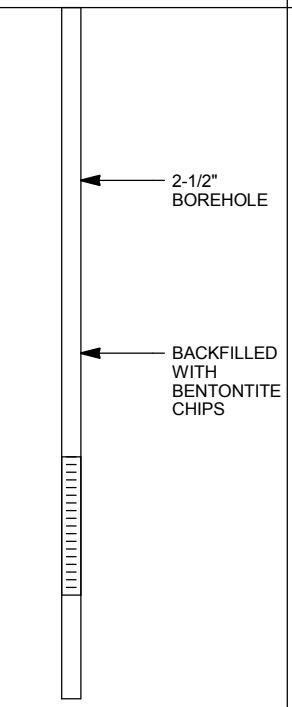
OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-47
DATE COMPLETED: May 31, 2007
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS
	GROUND SURFACE	715.91
	ASPHALT	715.61
2	GM-SILTY GRAVELS, with fine to coarse sands, compact, fine grained, poorly graded, gray, moist	714.41
4	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, dark brown, moist - rust brown at 2.3ft BGS	
6	- brown at 3.0ft BGS	709.41
8	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist - banding-brown, light brown and orange at 8.5ft BGS	
10	- white to beige at 10.5ft BGS	
12	- with orange banding at 11.5ft BGS	
14	- brown gray, very moist to saturated at 13.3ft BGS - saturated at 13.8ft BGS	
16		
18	- fine grained, no gravels at 17.3ft BGS	
	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist	697.91
20	END OF BOREHOLE @ 20.0ft BGS	695.91
22		
24		
26		
28		
30		
32		
34		
36		
38		



WELL DETAILS
Screened interval:
702.91 to 698.91ft BGS
13.00 to 17.00ft BGS
Length: 4ft

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP		75		0.8
2DP		80		0.2
3DP		80		0.1
4DP		85		0.1

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - WRBC
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB19-48
DATE COMPLETED: May 31, 2007
DRILLING METHOD: 2-1/2" DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.35						
	ASPHALT	715.05						
	GM-SILTY GRAVELS, with fine to coarse sands, compact, fine grained, poorly graded, gray, moist	713.85						
2				1DP		75		0.4
4	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, dark brown, moist - orange-brown at 3.0ft BGS		2-1/2" BOREHOLE					
6	- brown at 3.8ft BGS							
	- dark brown, trace clays at 6.5ft BGS	708.35						
8	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist			2DP		75		0.4
10	- banding-brown, light brown and orange at 9.0ft BGS		BACKFILLED WITH BENTONTITE CHIPS					
12	- white to beige at 10.5ft BGS - banding-white, brown and orange at 11.5ft BGS			3DP				0.2
14	- very moist to saturated at 12.5ft BGS - saturated, light gray at 13.0ft BGS - fine grained, brown-gray at 14.0ft BGS							
16		699.35						
	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	698.85						
18	CI-SILTY CLAYS, trace fine sands, firm, medium plasticity, gray, moist			4DP				ND
20		695.35						
	END OF BOREHOLE @ 20.0ft BGS							
22			WELL DETAILS Screened interval: 703.35 to 699.35ft BGS 12.00 to 16.00ft BGS Length: 4ft					
24								
26								
28								
30								
32								
34								
36								
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 5/17/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB-2-03
DATE COMPLETED: March 7, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHÉ

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CONCRETE DEBRIS		2" BOREHOLE					
		1.25	BENTONITE CHIPS					
2	SP-SANDS, trace silts, loose, poorly graded, fine grained, trace medium grained, orangy brown, moist			1AL 2-4'				0.0
4								
6								
8	- 4" sandy clay layer, orange/brown mottled at 7.5ft BGS			2AL 8-10'				45
10								
12				3AL 12-15'				0.0
	CH-SANDY CLAYS, firm, low plasticity, brown/black mottled, moist	12.75						
14	SP-SANDS, trace silts, loose, poorly graded, fine grained, trace medium grained, black, gray and white grains, wet	13.50						
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-01
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.92						
0	CONCRETE	714.62	2" BOREHOLE					
2	MH-SILTS WITH SANDS, (FILL), trace clay, loose, fine grained, poorly graded, dark brown, moist - trace concrete, slag, lenses of yellow paint, faint odor at 1.0ft BGS		BENTONITE CHIPS	1MC (1-3'-208)		20		N/A
4						20		0.0
6								
8		706.72		2MC		50		0.0
10	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, brown with black streaks, moist to very moist -wet at 8.4ft BGS					50		
12	CL/ML-CLAYEY SILTS, (FILL), compact, fine grained, poorly graded, brown, wet	703.22 702.72		3MC		80		
14	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, wet - dark gray, stronger odor at 13.6ft BGS							
16	CI-SILTY CLAY, trace fine grained rounded gravels (natural), stiff, medium plasticity, gray, moist, homogeneous	699.92				80		
18				4MC		100		
20	END OF BOREHOLE @ 20.0ft BGS	694.92				100		
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-02
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.14						
0	ASPHALT	714.74	2" BOREHOLE					
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, well graded, light gray, dry	714.14						
2	MH-SILTS WITH SANDS, trace clay (FILL), loose, fine grained, poorly graded, brown, moist		BENTONITE CHIPS	1MC		80		0.0
4	- trace gravels, concrete, yellow paint sludge at 1.5ft BGS					80		0.0
6	- 3" concrete rubble at 4.8ft BGS - layers of black and yellow at 6.0ft BGS							
8	- 1" wood at 7.5ft BGS - trace glass and steel at 7.7ft BGS			2MC		75		0.0
10	- debris not present at 9.0ft BGS					75		0.0
	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, wet	704.14						
12	- 1" black stain at 12.4ft BGS			3MC		80		0.0
	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, gray, wet	702.34						
14	SP-SANDS WITH SILTS, (FILL), compact, fine grained, poorly graded, gray, wet	701.14				80		0.0
	CI-SILTY CLAY, trace fine grained rounded gravels (natural), firm, medium plasticity, gray, moist	699.64						
16								
18				4MC		100		0.0
20	END OF BOREHOLE @ 20.0ft BGS	695.14				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-03
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.80						
0	ASPHALT	714.50	2" BOREHOLE					
	GM-SILTY GRAVELS, (FILL), compact, fine grained, poorly graded, light gray, dry	713.80	BENTONITE CHIPS					
2	MH-SANDY SILTS, (FILL), trace gravels, trace concrete, loose, fine grained, poorly graded, dark brown, moist			1MC		50		0.0
4	- trace yellow paint sludge (1/8" thick) at 1.5ft BGS	710.80				50		0.0
	- trace wood at 1.6ft BGS							
6	- trace concrete at 2.0ft BGS	708.80						
	- brown at 3.5ft BGS							
	SM-SILTY SANDS, (FILL), compact, fine grained, poorly graded, light brown, moist	707.30		2MC		75		0.0
8	MH-SILTS WITH SANDS, (FILL), compact, fine grained, poorly graded, medium brown, moist to very moist							
10	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, medium brown, moist					75		0.0
	- wet at 8.0ft BGS							
12	- gray, odor present at 12.0ft BGS			3MC		100		0.0
14								
	CI-SILTY CLAY, trace fine grained rounded gravels (natural), firm, medium plasticity, gray, moist	699.90				100		0.0
16								
18				4MC		100		0.0
20	END OF BOREHOLE @ 20.0ft BGS	694.80				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-04
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.77						
0	ASPHALT	714.47	2" BOREHOLE					
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained, poorly graded, light gray, dry	713.77	BENTONITE CHIPS					
2	MH-SILTS WITH SANDS, trace clay (FILL), loose, fine grained, poorly graded, dark and light brown, trace black streaks, moist			1MC		45		0.0
4	- 3" trace yellow paint at 4.0ft BGS					45		0.0
6	- 3" wood at 6.0ft BGS - debris not present at 6.5ft BGS							
8	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, brown, moist	707.17		2MC		80		0.0
10	- trace fine grained rounded gravels, wet at 8.7ft BGS - gravels not present at 9.0ft BGS					80		0.0
12	- gray, faint odor at 12.3ft BGS			3MC		100		0.0
14						100		0.0
16	CI-SILTY CLAY, trace fine grained rounded gravels (natural), stiff, medium plasticity, gray, moist, homogeneous	699.27		4MC		100		0.0
18								
20	END OF BOREHOLE @ 20.0ft BGS	694.77				100		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-05
DATE COMPLETED: November 12, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.99						
0	ASPHALT	714.59	2" BOREHOLE					
	GM-SILTY SANDS AND GRAVELS, (FILL), compact, fine grained angular, poorly graded, light gray, dry	713.99	BENTONITE CHIPS					
2	MH-SILTS WITH SANDS, (FILL), trace gravels, loose, fine grained, poorly graded, brown, moist			1MC		20		0.0
4	- brown at 3.7ft BGS - 2" trace red and yellow layers at 4.4ft BGS					20		0.0
6		708.49						
8	SP-SANDS WITH SILTS, (FILL), compact, fine grained, poorly graded, light brown, moist - 3" lens sandy silts at 7.4ft BGS - trace silts at 7.8ft BGS - wet, 1/4" lens orange-brown at 8.3ft BGS			2MC		75		0.0
10	- 1/4" lens orange-brown at 9.0ft BGS - 1/4" lens orange-brown at 9.4ft BGS - gray, faint odor at 9.8ft BGS					75		0.0
12	- brown at 10.5ft BGS - gray, medium grained at 13.2ft BGS			3MC		80		0.0
14	- fine grained at 14.2ft BGS					80		0.0
16	CI-SILTY CLAY, trace fine grained rounded gravels, trace fine grained sands (natural), stiff, medium plasticity, gray, moist, homogeneous	699.49		4MC		80		0.0
18								
20	END OF BOREHOLE @ 20.0ft BGS	694.99				80		0.0
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB21-06
DATE COMPLETED: November 24, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. DEITNER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.14						
0	ASPHALT	714.94	2" BOREHOLE					
	GM-SILTY GRAVELS, (FILL), compact, fine grained angular, poorly graded, light gray, dry	713.94	BENTONITE CHIPS	1MC				
2	SP-SANDS, trace silts (FILL), compact, fine grained, poorly graded, light brown, moist							
4	- trace fine grained gravels, trace slag at 4.5ft BGS					80		0.0
6								
8				2MC				
10	END OF BOREHOLE @ 10.0ft BGS	705.14				20		0.0
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB22-01
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.57						
0	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic	713.82						
2	ML/CL-SILTS AND CLAYS, trace coarse sands, firm, low to non plastic, brown-gray, moist			1DP				0.8
		711.07						
4	CRUSHED CONCRETE, fine sands to fine gravel size, white	710.57						
6	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist		2" BOREHOLE					
8	- with bricks, cinder, ash, concrete, plastic debris at 7.5ft BGS			2DP 7-9' -319 9-9.5' -320				1.9
		705.57						
	SL-WHITE SLUDGE, soft	705.07						
10	SP-SANDS, trace silts, clays and fine gravels, compact, fine to coarse grained, poorly graded, brown, saturated, slight odor and sheen		BENTONITE CHIPS					
12	- trace wood and glass debris, gray at 10.5ft BGS	702.07		3DP				9.4
14	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist							
		699.57						
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB22-02
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.24						
0	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic	712.74						
2	ML/CL-SILTS AND CLAYS, trace coarse sands, firm, low to non plastic, brown-gray, moist			1DP				0.8
		709.99						
4	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist		2" BOREHOLE					
6								
8	- with brick, cinder, wood, glass, concrete debris, black, slight odor, moist to very moist at 8.3ft BGS			2DP 8-10' -322				2.9
10	- medium brown, trace debris, very moist at 9.8ft BGS - saturated at 10.8ft BGS		BENTONITE CHIPS					
12								
	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	700.74		3DP				0.3
14								
	END OF BOREHOLE @ 15.0ft BGS	698.24						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB22-03
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	713.80						
0	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic	713.05						
2	ML/CL-SILTS AND CLAYS, trace coarse sands, firm, low to non plastic, brown-gray, moist			1DP				0.8
4	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist	709.80	2" BOREHOLE					
6								
8	CRUSHED CONCRETE, fine sands to fine gravel size, light green, no odor	705.55 705.05		2DP				0.9
10	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist - very moist at 9.8ft BGS		BENTONITE CHIPS					
12	- saturated, trace brick and concrete debris at 10.5ft BGS	701.80		3DP				0.7
	PT-PEAT, trace fine to medium sands, black, trace rootlets, organic-like odor	700.80						
14	- dark brown at 12.3ft BGS SP-SANDS, trace silts, clays and fine gravels, compact, fine to coarse grained, poorly graded, brown, saturated, slight odor and sheen	698.30						
16								
18	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist			4DP				0.2
20	END OF BOREHOLE @ 20.0ft BGS	693.80						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB22-04
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	714.53						
0	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic	714.03						
2	ML/CL-SILTS AND CLAYS, trace coarse sands, firm, low to non plastic, brown-gray, moist			1DP				0.8
4	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist	711.03	2" BOREHOLE					
6								
8	- with bricks, cinder, plastic, concrete, wood debris, slight odor, black and gray at 7.5ft BGS			2DP -7-9'- -321				3.5
10	- very moist at 9.5ft BGS - saturated at 10.3ft BGS		BENTONITE CHIPS					
12	SP-SANDS, trace silts, clays and fine gravels, compact, fine to coarse grained, poorly graded, brown, saturated, slight odor and sheen	703.78		3DP				0.4
14	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	700.78						
16	END OF BOREHOLE @ 15.0ft BGS	699.53						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB22-05
DATE COMPLETED: May 18, 2004
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	715.14						
0	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic	714.64						
2	ML/CL-SILTS AND CLAYS, trace coarse sands, firm, low to non plastic, brown-gray, moist	712.14		1DP				0.8
4	MH-SANDY SILTS, compact, fine to medium sands, poorly graded, medium brown, moist	711.14						
	CRUSHED CONCRETE, fine sands to fine gravel size, white	710.48	2" BOREHOLE					
6	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic, trace concrete and brick debris	708.14						
8	CRUSHED CONCRETE, fine sands to fine gravel size, tan	707.39		2DP 9-10' -323				0.8
10	MH-SANDY SILTS, compact, fine sands, poorly graded, dark brown, moist, non plastic, trace concrete and brick debris	704.64	BENTONITE CHIPS					
12	PT-PEAT, trace fine to medium sands, black, trace rootlets, slight petroleum-like odor	702.64		3DP 11-13' -324				7.2
14	SP-SANDS, trace silts, clays and fine gravels, compact, fine to coarse grained, poorly graded, brown, saturated, slight odor and sheen	701.64						
16	CL-SILTY CLAYS, trace fine to medium sands, firm, low plasticity, gray, moist	700.14						
	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

Date Start/Finish: 09/16/96 / 09/16/96
Drilling Company: Superior Environmental
Driller's Name: G. Hill
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : 8.25-in.
Rig Type: Mobile B-47
Spoon Size: 2-in.

Borehole Depth: 10 ft.

Geologist: M. Mueller

Well No. SB-2-30

Client:
General Motors Corporation

Location:
Willow Run Assembly Plant
Ypsilanti, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	FID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
									Concrete	Bentonite and cement backfill to 10 feet below land surface
									Sand, brownish yellow (10YR 6/8), fine to medium grained, poorly sorted, no HCL reaction	
5									Sand, very dark grey (10YR 3/1), fine to medium grained, poorly sorted, no HCL reaction	
									Sand, light yellowish brown (10YR 6/4), fine to medium grained, poorly sorted, no HCL reaction	
10									Gravelly sand, grey (10YR 5/1), fine to coarse grained, poorly sorted, 15% rounded to subrounded gravel, no HCL reaction	
15										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
Privileged and Confidential Prepared at Request of General Motors Counsel

Saturated Zones

Date / Time	Elevation	Depth

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB23-01
DATE COMPLETED: June 1, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	717.30						
0	ASPHALT, black	717.00	ASPHALT PATCH					
0	SM-SILTY SANDS, loose, fine to coarse grained, poorly graded, dark brown, moist			1DP				28.3
2	- brown, some orange streaking, compact at 0.8ft BGS							
4				2DP				26.9
4			2" BOREHOLE					
6	- trace clays, light brown and orange brown, moist to very moist at 6.8ft BGS			3DP				27.2
8	- no clays, brown, moist, trace orange streaking at 9.0ft BGS							
10	- very moist to saturated at 10.5ft BGS		BENTONITE CHIPS	4DP				19.7
10	- orange-brown and gray, saturated at 11.0ft BGS							
12	- gray, slight petroleum-like odor, increase in silt content at 13.0ft BGS			5DP				97.3
14								
16				6DP				383
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	699.80		7DP				292
20	END OF BOREHOLE @ 20.0ft BGS	697.30						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB23-02
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	716.95						
0	ASPHALT, black	716.65	ASPHALT PATCH					
2	SM-SILTY SANDS, loose, fine to coarse grained, poorly graded, dark brown, moist - brown, trace orange streaks at 0.8ft BGS - fine grained, compact at 2.0ft BGS			1DP				12.4
4	- light brown and orange brown mottled at 4.5ft BGS		2" BOREHOLE	2DP				7.2
6								
8	- with clays, increase in moisture content at 7.8ft BGS - no clays, decrease in moisture content, light brown at 8.8ft BGS			3DP				13.4
10	- brown, very moist to saturated at 10.5ft BGS - saturated at 11.0ft BGS		BENTONITE CHIPS	4DP				15.4
12								
14	- gray, slight petroleum-like odor, increase in silt content at 13.3ft BGS - medium to dark gray, moderate petroleum-like odor at 14.0ft BGS			5DP				328
16	- dark gray to black stained, strong petroleum-like odor, heavy sheen to water at 15.5ft BGS	700.20		6DP				2589
18	- dark gray, dark amber coloration to liquid, NAPL, strong petroleum-like odor at 16.3ft BGS			7DP				700
20	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist, slight petroleum-like odor	696.95						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB23-03
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.05						
0	ASPHALT, black	717.75	ASPHALT PATCH					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, brown, moist - brown with orange streaks, no gravels at 1.5ft BGS			1DP				18.2
4			2" BOREHOLE	2DP				20.2
6								
8	- very moist, trace clays, increase in silt content at 7.0ft BGS - 1" CL-SILTY CLAY seam, firm, low plasticity, brown-gray, moist at 7.5ft BGS - brown-gray, no clays at 9.0ft BGS			3DP				19.6
10			BENTONITE CHIPS	4DP				29.2
12	- dark gray, slight petroleum-like odor at 12.0ft BGS							
14	- black staining, saturated, strong petroleum-like odor, slight sheen to water at 12.5ft BGS - dark gray at 14.0ft BGS			5DP				363
16	- dark gray to black, strong petroleum-like odor at 16.0ft BGS			6DP				2800
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist, slight petroleum-like odor	700.30		7DP				1067
20	END OF BOREHOLE @ 20.0ft BGS	698.05						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB23-04
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	717.18						
0	ASPHALT, black	716.88	ASPHALT PATCH					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, brown, moist - light brown with orange streaking at 1.8ft BGS			1DP				24.8
4			2" BOREHOLE	2DP				27.1
6								
8	- with clays, brown-gray, very moist at 7.3ft BGS - brown with orange streaking at 8.0ft BGS			3DP				203
10	- no clays, light brown at 9.6ft BGS - orange streaking, very moist at 10.8ft BGS		BENTONITE CHIPS	4DP				259
12	- saturated at 11.5ft BGS							
14	- 4" CL-SILTY CLAY seam, firm, low plasticity, brown and gray mottled, moist at 13.5ft BGS - black staining, strong petroleum-like odor at 14.0ft BGS			5DP				475
16	- moderate sheen to water, very strong petroleum-like odor at 16.5ft BGS	700.18		6DP				509
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist, slight petroleum-like odor			7DP				261
20	END OF BOREHOLE @ 20.0ft BGS	697.18						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Former South Culvert Area Approx. 100' north of SB–2–33 Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 16, 1996	
BORING NO.: SB–2–31	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 2M2 collected from SB–2–31 (2.2–4.2) for Pb analysis, and 826P (pending P.M. approval) analysis. (Duplicate soil sample)
WEATHER: Snow, 32°, Wind – SW 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
					0–2" Asphaltic conrete
1	Pb	2"	8"		2"–1' Sand and rock fragments (sub–base), pale yellowish brown.
					1'–1.5' Clayey sand, some rock fragments, grayish brown.
2	Pb	8"	2.2'		1.5'–2' Silty–clayey sand, dark yellowish orange.
	Pb				2'–3' Silty sand, dark yellowish orange.
3	8260*	2.2'	4.2'		3'–4' Paint waste (green, yellow, black).
					4'–4.5' Decomposing layer of apparent black tar paper
4	Pb	4.2'	6.2'		(roofing material?)
					4.5'–7' Clayey sand, dark yellowish orange.
					7'–7.5' Sandy clay, dark yellowish orange.
5	Pb	6.2'	8.2'		7.5'–8.5' Clayey sand, dark yellowish orange.
					8.5'–12' Silty sand, pale yellowish brown.
6	Pb	8.2'	10.2'		(Petroleum sheen noted on soils below 10'BGS – below
					the water table)

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

* – Hold for P.M. approval

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Former South Culvert Area Approx. 130' west and 75' north of SB–2–33 Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 16, 1996	
BORING NO.: SB–2–32	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Snow, 32°, Wind – SW 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
					0–2" Asphaltic conrete
1	Pb	2"	8"		2"–1' Sand and rock fragments (sub–base), pale yellowish brown.
					1'–1.5' Coal and iron slag, some sand, dusky brown–black.
2	Pb	8"	2.2'		1.5'–2' Gravely sand, moderate–dark yellowish brown.
					2'–3.5' Gravelly sand, moderate yellowish brown.
3	Pb	2.2'	4.2'		3.5'–5.5' Sand, moderate yellowish brown.
					5.5'–7' Silty sand, moderate yellowish brown.
4	Pb	4.2'	6.2'		
					7'–7.5' Silty clay, moderate yellowish brown.
5	Pb	6.2'	8.2'		7.5'–8' Sand, fine to medium grained, moderate yellowish brown.
					8'–8.5' Sandy gravel, dusky brown.
6	Pb	8.2'	10'		'8.5'–10' Silty sand, grayish orange–dark yellowish orange.
					'10'–12' Sandy silt, dark yellowish orange
					End of boring = 12'BGS.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Former South Culvert Area Approx. 136' west and 75' north of SB–2–34 Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 16, 1996	
BORING NO.: SB–2–33	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 11' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS:
WEATHER: Snow, 32°, Wind – SW 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
1	Pb	2"	8"		0–2' Asphaltic conrete 2'–2.5' Silty clay and clayey sand, some red paint waste fragments
2	Pb	8"	2.2'		2.5'–4.5' Silty sand, dark yellowish orange – moderate yellowish brown.
3	Pb	2.2'	4.2'		4.5'–5' Silty–clayey sand, dark yellowish orange – moderate yellowish brown.
4	Pb	4.2'	6.2'		5'–7' Gravelly sand, moderate–dark yellowish brown.
5	Pb	6.2'	8.2'		7'–8' Sand, dark yellowish brown, coarse to fine grading, some metal fragments.
6	Pb	8.2'	11'		8'–11' Same as SB–2–34 with the addition of some rock fragments.
7	Pb	11'	12'		11'–12' Silty clay, light olive gray. End of boring = 12'BGS.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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SOIL BORING RECORD

EXPLORATION FOR: Subsurface Lithology	LOCATION: Former South Culvert Area Approx. 15' west and 105' south of SB–18–1 Willow Run GM Willow Run Facility Ypsilanti Township, Michigan
DATE: December 16, 1996	
BORING NO.: SB–2–34	
RECORDED BY: Alan Fass	WATER TABLE: Approx. 10' BGS
DRILL TYPE: Simco Earthprobe 200	COMMENTS: Duplicate 3M2 collected from SB–2–34 (8" –2.2') for Pb analysis only. (Duplicate soil sample.)
WEATHER: Snow, 32°, Wind – SW 5–10 mph	

SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
					0–2' Asphaltic conrete
1	Pb	2"	8"		2"–2' Same as SB–2–31.
					2'–4.5' Sand (very fine) – silty sand, dark yellowish orange.
2	Pb	8"	2.2'		
					4.5'–5' Silty–clay, dark yellowish orange
3	Pb	2.2'	4.2'		
					5'–6' Silty sand, dark yellowish orange.
4	Pb	4.2'	6.2'		
					6'–7' Sandy silt, dark yellowish orange.
5	Pb	6.2'	8.2'		7'–8.25' Silty sand, dark yellowish orange.
					8.25'–8.75' Silty clay, light yellowish orange–pale yellowish brown.
6	Pb	8.2'	10'		8.75'–10' Silty sand – clayey sand, pale yellowish brown –
					light olive gray.
					10'–12' Silty clay, light olive gray.
					End of boring = 12'BGS.

REMARKS

SS – Split Spoon

BLS – Below Land Surface

NR – Not Recorded

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STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB24-01
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.12						
0	ASPHALT, black	717.82	ASPHALT PATCH					
2	SP-SANDS WITH GRAVELS, trace silts and clays, loose, fine to coarse grained, poorly graded, fine gravels, light brown to beige, moist - dark brown at 1.0ft BGS			1DP				11.1
4				2DP				19.0
6	- gray, slight petroleum-like odor at 5.5ft BGS		2" BOREHOLE					
8	- very moist, with silts and clay at 7.5ft BGS	710.12		3DP				16.8
10	SM-SILTY SANDS, trace fine gravels, compact, fine grained, poorly graded, brown-gray, moist to very moist, slight petroleum-like odor - 3" red paint sludge seam at 9.8ft BGS - very moist at 10.5ft BGS		BENTONITE CHIPS	4DP				338
12	- black staining, saturated, strong petroleum-like odor at 11.0ft BGS			5DP				35.9
14	- 3" CL-SILTY CLAY seam, firm, low plasticity, brown and gray mottled, moist at 12.2ft BGS - gray, slight petroleum-like odor at 12.5ft BGS							
16				6DP				29.3
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	700.12		7DP				9.7
20	END OF BOREHOLE @ 20.0ft BGS	698.12						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB24-02
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.12						
0	ASPHALT, black	717.82	ASPHALT PATCH					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, brown with orange streaking, moist			1DP				14.0
4			2" BOREHOLE	2DP				13.9
6								
8				3DP				396
10	- dark gray to black, moderate petroleum-like odor at 8.5ft BGS - black staining, strong petroleum-like odor at 9.0ft BGS - very moist to saturated, gray at 10.0ft BGS - saturated at 10.5ft BGS		BENTONITE CHIPS	4DP				787
12								
14	- 2" CL-SILTY CLAY seam, firm, low plasticity, brown and gray mottled, moist at 13.3ft BGS - slight petroleum-like odor at 14.5ft BGS			5DP				1156
16				6DP				198
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	700.87		7DP				13.6
20	END OF BOREHOLE @ 20.0ft BGS	698.12						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB24-03
DATE COMPLETED: June 8, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	717.84						
0	ASPHALT, black	717.54	ASPHALT PATCH					
0	SP-SANDS WITH GRAVELS, trace silts and clays, loose, fine to coarse grained, poorly graded, fine gravels, light brown to beige, moist			1DP				17.1
4			2" BOREHOLE	2DP				17.0
8	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, brown, moist	711.09		3DP				9.1
10	- with clays, medium brown, slight increase in moisture content at 7.8ft BGS - trace clays, brown and orange-brown at 9.0ft BGS		BENTONITE CHIPS	4DP				12.2
12	- no clays, brown at 9.5ft BGS - brown-gray, very moist to saturated at 10.8ft BGS							
12	- saturated at 11.3ft BGS	705.09		5DP				15.5
14	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, brown and gray mottled, moist	704.34						
16	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated - increase in silt content at 15.8ft BGS			6DP				12.0
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	701.09		7DP				10.3
20	END OF BOREHOLE @ 20.0ft BGS	697.84						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB24-04
DATE COMPLETED: June 3, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	718.65						
0	ASPHALT, black	718.35	ASPHALT PATCH					
2	SM-SILTY SANDS, trace clays, compact, fine to coarse grained, poorly graded, dark brown, moist - brown, no clays at 1.8ft BGS - fine grained, light brown, trace orange streaking at 3.0ft BGS			1DP				18.5
4			2" BOREHOLE	2DP				21.5
6	- trace clays, brown and orange-brown, slight increase in moisture content at 6.8ft BGS			3DP				21.4
8	- no clays, light brown at 8.5ft BGS - fine to coarse grained at 9.5ft BGS							
10			BENTONITE CHIPS	4DP				20.0
12	- very moist at 11.0ft BGS - fine to medium grained, saturated brown-gray at 11.3ft BGS			5DP				22.0
14	- 2" CL-SILTY CLAY seam, firm, low plasticity, brown and gray mottled, moist at 14.3ft BGS - gray, increase in silt content at 14.6ft BGS							
16				6DP				19.4
18	CL-SILTY CLAYS, trace fine sands, stiff, low plasticity, gray, moist	701.40		7DP				19.7
20	END OF BOREHOLE @ 20.0ft BGS	698.65						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: SB-3-03
DATE COMPLETED: March 7, 2003
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: M. MATHÉ

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	ASPHALT	0.08	2" BOREHOLE					
2	SC-CLAYEY SANDS, trace fine subangular gravel, compact, poorly graded, fine grained, trace coarse grained, dark brown, moist	2.00	BENTONITE CHIPS	1AL 4-5'				6.6
4	SP-SANDS, with silt, loose, poorly graded, fine grained, trace medium grained, orangy brown, moist							
6								
8				2AL 6-8'				7.2
10								
12	- very moist to damp at 12.0ft BGS			3AL 13-15'				6.8
14	- wet at 13.5ft BGS							
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 10/5/05

TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-1
DATE COMPLETED: September 3, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEST PIT	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE PID (ppm)
	GROUND SURFACE	714.00				
0	SW-SANDS (FILL), fine to medium grained, well graded, trace fine gravels, dark brown, moist	712.50	BACKFILLED WITH EXCAVATED SOIL	1AL	0.0 - 2.0	0.0
2	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist			2AL	2.0 - 4.0	0.0
4				3AL	4.0 - 6.0	0.0
6	SM-SILTY SANDS (FILL), very fine grained, poorly graded, dense, brown	708.50				
	- ceramic tile at 5.5ft BGS	707.50		4AL	6.0 - 8.0	0.0
8	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist			5AL	8.0 - 10.0	0.0
	- debris, black/moldy, strong odor at 7.5ft BGS					
10	- debris, strong odor, solidified sludge material at 8.0ft BGS	704.00		6AL	10.0 - 12.0	0.0
	END OF TEST PIT @ 10.0ft BGS					
12						
14						
16						
18						
20						
22						
24						
26						
28						
30						
32						
34						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-2
DATE COMPLETED: September 3, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEST PIT	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE PID (ppm)
	GROUND SURFACE	715.00				
0	SW-SANDS (FILL), fine to medium sands, trace fine gravels, well graded			1AL	0.0 - 2.0	0.0
2	- steel 2" line at 2.0ft BGS			2AL	2.0 - 4.0	0.0
	- debris, steel at 3.5ft BGS					
4	SP-SANDS (FILL), fine grained, poorly graded, dense, light brown, moist	711.00	BACKFILLED WITH EXCAVATED SOIL	3AL	4.0 - 6.0	0.0
6				4AL	6.0 - 8.0	0.0
8				5AL	8.0 - 10.0	0.0
10	END OF TEST PIT @ 10.0ft BGS	705.00				
12						
14						
16						
18						
20						
22						
24						
26						
28						
30						
32						
34						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-3
DATE COMPLETED: September 8, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEST PIT	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE PID (ppm)
	GROUND SURFACE	715.00				
	ASPHALT	714.60				
	SW/GW-SANDS AND GRAVELS,	713.30				
2	SW-SANDS (FILL), fine and medium grained, well graded					
	- glass, trace black staining at 3.0ft BGS					
4						
	- debris, black staining, stratified layers at 5.0ft BGS					
6	- black staining, debris, plastics, papers, glass bottles at 6.0ft BGS					
	- black staining, debris, plastics, papers, glass, ceramic cups at 7.0ft BGS	707.00				
8	SM-SILTY SANDS (FILL), weathered, oxidized, olive green, strong odor	705.50	BACKFILLED WITH EXCAVATED SOIL			
10	SP-SANDS (FILL), fine grained, poorly graded, intermittent black staining, strong odors, medium brown					
	- wet, strong at 10.0ft BGS				10.0 - 13.0	>2000
12	- saturated, sheeny at 13.0ft BGS					
14					13.0 - 15.0	>2000
16						
	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist	698.10				
18						
	END OF TEST PIT @ 19.0ft BGS	696.00				
20						
22						
24						
26						
28						
30						
32						
34						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-4
DATE COMPLETED: September 8, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEST PIT	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE PID (ppm)
	GROUND SURFACE	714.50				
0	ASPHALT	714.10				
	SP-SANDS (FILL), fine grained, poorly graded, light brown, moist					
2	- steel drum ring at 2.0ft BGS			1AL	0.0 - 4.0	69.0
	- 3.5' debris (yellow solid paint sludge, plastics, paper products, glass, strong odors) at 3.0ft BGS					
4				2AL	4.0 - 6.0	>2000
6						
	SM-SILTY SANDS (FILL), some fine sands, dense, gray, moist, strong paint odor	707.50		3AL	6.0 - 8.0	>2000
8			BACKFILLED WITH EXCAVATED SOIL			
	- 0.3' silty clay seam, strong odor at 9.3ft BGS					
10	- 0.2' silty clay seam, strong odor at 10.2ft BGS			4AL	8.0 - 12.0	>2000
12						
14				5AL	12.0 - 16.0	>2000
	- trace black staining at 14.7ft BGS	699.70				
	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist	698.50				
16	END OF TEST PIT @ 16.0ft BGS					
18						
20						
22						
24						
26						
28						
30						
32						
34						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-5
DATE COMPLETED: September 8, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	TEST PIT	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.00			
0	ASPHALT	714.60			
	SW/GW-SANDS AND GRAVELLY SANDS (FILL), fine to coarse grained, well graded, dark brown, moist	713.20			
2	SP-SANDS (FILL), fine grained, poorly graded, homogeneous, dense, light brown, moist				
4	- debris, metal shavings, yellow-green at 5.0ft BGS				
6					
8	- steel drum, wet, strong odors, paint odor at 8.0ft BGS				
	- decrease in debris, strong odors, paint-like odor at 9.0ft BGS		BACKFILLED WITH EXCAVATED SOIL		
10	- increase in silts, strong odors, paint-like odor at 10.0ft BGS				
12	- wet at 12.0ft BGS				
14					
16	- trace brown oily product at 15.9ft BGS	699.00			
	CL-SILTY CLAYS (native), trace fine sands, stiff, low plasticity, gray, moist				
18					
	END OF TEST PIT @ 19.0ft BGS	696.00			
20					
22					
24					
26					
28					
30					
32					
34					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

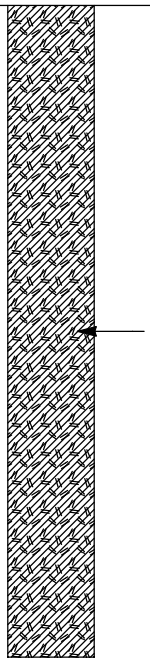
TEST PIT STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP18-6
DATE COMPLETED: September 8, 2004
TEST PIT METHOD: EXCAVATOR
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.40
2	SW/GW-SANDS AND GRAVELLY SANDS (FILL), fine to coarse grained, fine to medium gravels, well graded, brown, moist	
	- electrical conduit line at 2.8ft BGS	2.50
4	SP-SANDS (FILL), fine grained, poorly graded, dense, light brown, moist	
	- 0.4' seam potassium permanganate, trace debris, black staining at 3.0ft BGS	
6	- steel drum (intact), empty at 3.5ft BGS	
	- steel drum, strong solvent odor, 5-gal bucket at 6.0ft BGS	
8	- 2.0' steel and miscellaneous debris, yellow staining at 7.0ft BGS	
10	SM-SILTY SANDS, some fine and medium sands, dense, olive-gray, wet	9.50
12		
14		
	CL-SILTY CLAYS (native), trace fine sands, stiff, competent, low plasticity, gray, moist	15.00
16		16.50
	END OF TEST PIT @ 16.5ft BGS	
18		
20		
22		
24		
26		
28		
30		
32		
34		

TEST PIT



SAMPLE

NUMBER	INTERVAL	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A1
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.90		
0	ASPHALT	715.50		
	GP-GRAVEL, 2"-3", asphalt underlayment, poorly graded, dry, gray	714.70		
2	SW-SAND, fine to coarse grained with intermixing debris: bricks, concrete, glass, clear vinyl, trace slag and wood debris, dark brown, moist			
4				
6	SP-SAND, medium grained, poorly graded, trace fines, loose, light brown, moist	710.90		
8				
10	- some silts at 9.3ft BGS			
	END OF TEST PIT @ 10.5ft BGS	705.40		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A13
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.10		
	ASPHALT	714.60		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry			
2	SW-SAND & DEBRIS, fine to coarse grained, debris: concrete and steel rebar remnants (1/4"), brown, moist	713.50		
4	SP-SAND, medium grained, poorly graded, medium brown, moist	711.10		
6				
8	SM-SILTY SAND (NATIVE), some medium sands, homogeneous, gray, moist	708.10		
10	END OF TEST PIT @ 9.7ft BGS	705.40		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A22
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	716.70		
	ASPHALT	716.30		
	- partial steel drum remnants at 0.6ft BGS	715.70		
2	GP-GRAVEL, 2"-3" cobbles, asphalt underlayment			
	SW-SAND, fine to coarse grained, well graded, loose, dark brown, moist	714.60		
4	SP-SAND (NATIVE), medium grained, poorly graded, loose, light brown, moist			
6				
8				
10	END OF TEST PIT @ 9.6ft BGS	707.10		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A23
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	716.70		
0	ASPHALT	716.30		
	GP-GRAVEL, 2"-3" cobbles, asphalt underlayment, poorly graded, dry, gray			
	- partial steel drum lid at 1.2ft BGS	715.40		
2	SP-SAND (NATIVE), medium grained, some fines, poorly graded, brown, moist			
10	- very moist, some silts at 10.8ft BGS	705.80		
	END OF TEST PIT @ 10.9ft BGS			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A30
DATE COMPLETED: June 14, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.90		
	ASPHALT	715.50		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, dry, gray			
2	SW-SAND & DEBRIS, fine to coarse sands, well graded, debris: solid paint waste, concrete pieces, wood remnants, tin cans	714.30		
	- yellow paint staining, intermitent to 8' bgs at 2.0ft BGS			
4				
	- 55 gallon drum, approx. 25 gallons of product/H2O, strong solvent odor at 5.5ft BGS			
6	- stained soils (trace NAPL residue) at 5.7ft BGS			
8				
	SW-SAND, fine to coarse sands, well graded, loose, some black foundry sands, strong odor	707.10		
10	- wet at 10.0ft BGS			
12				
14				
16	CL-SILTY CLAY (NATIVE), trace fine gravels, competent, low to medium plasticity, gray, dry to moist	700.10 699.90		
	END OF TEST PIT @ 16.0ft BGS			
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A31
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.90		
	ASPHALT	715.50		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry			
2	SW-SAND & DEBRIS, fine to medium grained, well graded, debris:	714.30		
	- yellow paint solids at 2.0ft BGS			
4	- 35 gallon drum with stained soils at 2.5ft BGS			
	- 35 gallon drum with stained soils at 3.0ft BGS			
	- wood blocks at 3.5ft BGS			
6	- 35 gallon drum containing 10-15 gallons of DNAPL product, brown, strong odors at 4.5ft BGS			
	- 55 gallon drum containing 20-25 gallons of DNAPL product at 5.5ft BGS	709.40		
8	- wood debris, plastics at 6.3ft BGS			
	SW-SAND, fine to coarse sands, some foundry sands, black, loose, gray, moist			
10		705.30		
	END OF TEST PIT @ 10.6ft BGS			
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A32
DATE COMPLETED: June 7, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.60		
0	ASPHALT	714.30		
	GP-GRAVEL (FILL), asphalt base, 2"-4" gravels, poorly graded, dry, gray	713.90		
2	SW-SAND, medium to coarse sands, well graded, dark brown, debris: plastics, cardboard, shavings, glass bottles, solidified paint solids, bricks, wood, steel rods, metal scrap material, slag, concrete pieces, brick, dark brown, well graded, moist			
4				
6				
		707.60		
8	SP-SAND, medium grained, poorly graded, homogenous, medium brown, moist			
10	END OF TEST PIT @ 10.0ft BGS	703.80		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A33
DATE COMPLETED: June 7, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.70		
0	ASPHALT	714.40		
	SW/GW-SAND & GRAVELS (FILL MATERIAL), debris: metal shavings, steel rods, concrete, bricks, glass, plastics, trace paint sludges			
2				
	SAND (FILL), medium grained, poorly graded, loose, oxidation, staining, light brown, moist	711.70		
4				
	SP-SAND (NATIVE), medium grained, poorly graded, loose, medium brown, moist	709.20		
6	- trace silty clays at 7.0ft BGS			
8				
10				
12	END OF TEST PIT @ 12.0ft BGS	702.70		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A35
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.50		
	ASPHALT	714.10		
	GP-GRAVEL, 2"-3" gravel, poorly graded, asphalt base	713.20		
2	SW-SAND & DEBRIS, fine to coarse grained, well graded, debris: miscellaneous car parts, wire harness, tubular copper products, wood blocks, tire iron, lugnut wrench, center bracket, battery box, center carrier bearings, transmission linkages, u-bolts, shocks (1), cross members and miscellaneous metal scraps, drive shaft			
4	- General Motors Chevrolet Division lables at 5.0ft BGS			
6	SP-SAND, fine grained, some medium sands, poorly graded, light brown, moist	708.70		
8				
10	END OF TEST PIT @ 10.0ft BGS	704.50		
	* DEBRIS WAS EVIDENT ON ALL FOUR SIDES OF TEST PIT			
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A36
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.04		
0	ASPHALT	713.64		
	GP-GRAVEL (ASPHALT BASE), 2"-3", poorly graded, dry, gray	712.84		
	- steel drum lid, no other debris at 1.0ft BGS			
2	SP-SAND, medium grained, poorly graded, trace silts, loose			
4				
6				
8	- trace sandy clays at 7.7ft BGS			
10		703.44		
	SP-SILTY CLAYS (NATIVE), some fine and medium sands, semi-competent, mottled, brown-gray, moist	702.54		
12	END OF TEST PIT @ 11.5ft BGS			
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A38
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.60		
0	ASPHALT	713.20		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry - steel plate at 0.9ft BGS			
2	- electrical conduit debris at 1.3ft BGS - telephone pole remnants (5'-6' long) at 1.6ft BGS	711.60		
4	SP-SAND, medium grained, poorly graded, some fines, loose, medium brown, moist			
6				
8				
10	- becoming gray, some silts at 9.6ft BGS - moist to wet at 10.5ft BGS			
12	END OF TEST PIT @ 11.0ft BGS	702.60		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A39
DATE COMPLETED: June 14, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.30		
0	SW-SAND, fine to medium sands, trace vegetation, well graded, dark brown, moist			
2	SP-SAND, medium grained, some fines, poorly graded, light brown, moist - miscellaneous metal scraps at 2.8ft BGS	711.10		
10	SM-SILTY SANDS, fine grained, poorly graded, gray, moist, faint odors	703.40 703.00		
12	SP-SAND, medium grained, some foundry sands, black, poorly graded, strong odor, gray-black, moist - wet at 11.0ft BGS			
	END OF TEST PIT @ 12.9ft BGS	700.40		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A4
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.90		
0	ASPHALT	715.50		
	GP-GRAVEL, 2"-3", asphalt underlayment	714.70		
2	SW-SAND, fine to coarse grained, intermixing debris: brick, concrete blocks (refractory), well graded, dark brown, moist	713.30		
	SP-SAND, medium grained, poorly graded, loose, light brown, moist			
4				
6				
8				
	- some silty sands at 9.3ft BGS			
10	END OF TEST PIT @ 10.0ft BGS	705.90		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A48
DATE COMPLETED: June 8, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.50		
0	ASPHALT	714.10		
	GP-GRAVEL, 2" cobbles, asphalt underlayment, gray, dry	713.40		
2	SW-SAND, fine to coarse sands, debris: metal shavings, glass, steel fencing, plastics, springs, 3" rubber gaskets, miscellaneous metal scraps, well mixed, dark brown, dry			
4				
6				
8	SP-SAND, fine grained, poorly graded, brown, oxidation staining, moist	706.30		
10	SP-SAND, fine grained, poorly graded, gray, moist to wet, faint odor - wet, faint odor at 11.0ft BGS	704.30		
12	END OF TEST PIT @ 12.8ft BGS	701.70		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A5
DATE COMPLETED: June 10, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.90		
	ASPHALT	715.50		
	GP-GRAVEL, 2"-3", asphalt underlayment, poorly graded, dry, gray	714.60		
2	SW-SAND, fine to coarse grained, debris, trace metal scraps, trace black tar - tar layer, black, solid from 2.0 to 2.6ft BGS			
	SP-SAND, medium grained, trace fines, poorly graded, loose, light brown, moist	712.90		
4				
6				
8				
10	END OF TEST PIT @ 10.0ft BGS	705.90		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A60
DATE COMPLETED: June 14, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.20		
0	SW-SAND, fine to medium grained, well graded, trace vegetation, dark brown, moist			
2	SP-SAND, medium grained, poorly graded, light brown, moist	712.20		
12	SM-SILTY CLAY, trace clays, trace fine sands, trace plastics, gray, moist	702.60		
	END OF TEST PIT @ 12.5ft BGS	701.70		
	* NO EVIDENCE OF DEBRIS/NAPL			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A6N
DATE COMPLETED: June 9, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.40		
0	ASPHALT	715.00		
	GP-GRAVEL, 2"-3" asphalt underlayment, some sands, fine grained, dry, gray	714.10		
2	SW-SAND/DEBRIS, fine to coarse grained, debris: misc. metal scraps, angle iron plastics, cardboards, trace black solids, trace solid tar, cement bricks			
	- partial steel drum (dry) at 3.0ft BGS			
4				
6	SP-SAND, medium grained, poorly graded, brown, moist	709.70		
8				
	- some silts at 8.8ft BGS			
10				
12	END OF TEST PIT @ 11.9ft BGS	703.50		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A6S
DATE COMPLETED: June 9, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.30		
0	ASPHALT	714.90		
	GP-GRAVEL, asphalt underlayment, 2"-3" gravels, dry, gray	713.80		
2	SW-SAND/DEBRIS, debris: miscellaneous metal scraps, angle iron, plastics, cardboards, trace black sludge, trace solid tar, 6" steel pipes			
	- black oily tar, partial drum (containing 2-3 gallons of black tar) at 2.5ft BGS			
4	- partial drum (dry) at 4.0ft BGS			
6	Solidified tar layer, hard, black	709.30		
8	SP-SANDS, fine to medium sands, trace sandy clays, brown-black staining, trace foundry sands	707.50		
10				
12	- wet at 11.8ft BGS	703.30		
	END OF TEST PIT @ 12.0ft BGS			
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-A6S2
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	715.80		
0	ASPHALT	715.30		
	GP-GRAVELS WITH SANDS (ASPHALT BASE), 2-3" gravels, poorly graded, gray, dry			
2	- trace metal scraps from 1.3 to 1.9ft BGS	713.80		
	SP-SAND, medium grained, poorly graded, medium brown, moist			
4				
6				
8	CL-SILTY CLAY AND SANDS, some fine and medium sands, intermixing silty clays, gray, moist	708.30		
10	END OF TEST PIT @ 9.5ft BGS	706.30		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-C
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.70		
0	ASPHALT	714.30		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	713.40		
	SP-SAND, medium grained, poorly graded, medium brown, brown, moist			
8	SM-SILTY SAND, trace silty clays, trace medium sands, poorly graded, gray, moist to wet	706.20		
10	END OF TEST PIT @ 11.0ft BGS	703.70		
	* NO DEBRIS FOUND			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-C3
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.30		
	ASPHALT	713.90		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	713.00		
2	SW-SAND, fine to coarse grained, well graded, dark brown, moist - 2" steel pipe, 2' long at 2.1ft BGS - large concrete pieces (3) at 3.0ft BGS			
4		710.10		
	SP-SAND, medium grained, poorly graded, light brown, moist			
6				
8		706.30		
	SM-SILTY SANDS, some fine and medium sands, dense, gray, moist to wet			
10				
		703.00		
12	END OF TEST PIT @ 11.3ft BGS			
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-D1
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	ASPHALT	0.40		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	1.30		
2	SP-SAND, medium grained, poorly graded, medium brown, moist - 2 pieces of 2" steel pipe and trace other metal scraps at 2.5ft BGS			
4				
6				
8	SM/SP-SILTY SAND, some clay intermixing, semi-competent, mottled brown, gray, moist	7.70		
10	- moist to wet at 10.5ft BGS			
	END OF TEST PIT @ 11.0ft BGS	11.00		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-D2
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	ASPHALT	0.40		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, dry	1.50		
2	SP-SAND, medium grained, poorly graded, light brown, moist - trace metal scraps, screen material at 2.0ft BGS - copper grounding rod, 6' long 1" diameter at 2.5ft BGS			
4				
6				
8	SM-SILTY SANDS, some fine and medium grained sands, poorly graded, gray, moist to wet	7.60		
10				
	END OF TEST PIT @ 10.5ft BGS	10.50		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-E
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.60		
0	ASPHALT	713.20		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, gray, dry			
	- trace steel scraps (pipe) at 1.0ft BGS			
2	SP-SAND (NATIVE), medium grained, poorly graded, medium brown, trace oxidation staining	711.80		
4				
6				
8	- becoming gray, silty at 8.5ft BGS			
10	END OF TEST PIT @ 9.6ft BGS	704.00		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-F
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.80		
	ASPHALT	713.40		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravel, poorly graded, gray, dry			
	- trace scrap, 1" piece at 1.8ft BGS	712.10		
	SP-SAND, medium grained, poorly graded, brown, moist			
	SM-SILTY SANDS, some fines, poorly graded, gray, moist to wet	704.90		
	END OF TEST PIT @ 11.0ft BGS	702.80		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-G
DATE COMPLETED: June 11, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.70		
0	ASPHALT	713.30		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	712.40		
2	SP-SAND, medium grained, poorly graded, loose, light brown, moist			
4	- one piece of concrete and rebar at 4.0ft BGS			
6				
8	SM/SP-SILTY SANDS, fine grained, some silty clays, semi-competent, brown-gray, moist	705.70		
10				
	END OF TEST PIT @ 11.0ft BGS	702.70		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-H
DATE COMPLETED: June 13, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.60		
	ASPHALT	713.20		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry			
	SP-SAND, medium grained, poorly graded, medium brown, moist	712.00		
	- oxidation staining at 7.0ft BGS			
	- silty sands, gray at 9.3ft BGS			
	- moist to wet at 10.6ft BGS			
	END OF TEST PIT @ 11.0ft BGS	702.60		
	* NO DEBRIS FOUND			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-I
DATE COMPLETED: June 8, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.50		
0	ASPHALT	714.20		
	GP-GRAVEL, 2" cobbles, asphalt underlayment, poorly graded, dry, gray	713.40		
2	SW-SAND & DEBRIS, fine to coarse sands, debris: 2" steel cables, steel tire rims, truck rotor, drive-chain, glass, solidified paint waste (purple), slag, plastics, 6" rubber gaskets and misc. scrap materials			
	- 2 empty partial drums found from 2.0 to 3.0ft BGS			
4	- partial steel drum, with black and oily sludge at 4.0ft BGS			
6				
8	SP-SAND, fine grained, some medium sands, intermixing silty clays, brown, moist	706.80		
	- black staining at 8.4ft BGS			
10				
	- wet, trace sheens at 11.0ft BGS			
12				
	END OF TEST PIT @ 12.8ft BGS	701.70		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-J
DATE COMPLETED: June 8, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.00		
0	ASPHALT	713.60		
	GP-GRAVEL, 2" cobbles, asphalt underlayment, dry, gray	713.20		
	SW-SAND (FILL), fine to coarse grained, well graded, trace steel debris, dark brown, moist	712.80		
2	SW-SAND (FILL), fine to medium grained, debris: steel wiring, springs, steel pipe 2", wood blocks, trace slag, dark brown, moist			
4	SP-SAND (NATIVE), fine grained, poorly graded, oxidation staining, light brown, moist	710.00		
6				
8	- trace silty sands, gray at 8.0ft BGS			
10				
	- wet at 11.5ft BGS			
12	END OF TEST PIT @ 12.0ft BGS	702.00		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-K
DATE COMPLETED: June 8, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.90		
0	ASPHALT	713.50		
	GRAVEL, 2" cobbles, asphalt underlayment, gray, dry	712.90		
2	SW-SAND, fine to coarse sands, debris fragments of 3-4 decayed steel drums, broken glass bottles, slag, steel meshing, steel wiring, trace paint solids (yellow), brown, moist			
4				
6				
	SW-SAND (FILL), fine to medium grained, trace coarse sands, well graded, moist	707.60		
8				
10	- wet at 10.0ft BGS			
	END OF TEST PIT @ 10.5ft BGS	703.40		
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-L
DATE COMPLETED: June 8, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.10		
0	ASPHALT	713.80		
	GW-GRAVEL, underlayment for asphalt, 2"-3" gravels, poorly graded, dry, gray	713.30		
2	SW-SAND, fine to coarse sands, with intermixing debris, steel pipes 2"-4" diameter, 2" steel cables, springs, misc steel scraps, yellow-purple paint solids, cement bricks, partial steel drum remnants, all corners of the test pit contained debris			
4				
6				
		707.10		
8	SP-SAND (NATIVE), fine grained, poorly graded, medium brown, moist			
10	- oxidation staining at 10.0ft BGS			
12	- wet at 12.0ft BGS			
	END OF TEST PIT @ 12.5ft BGS	701.60		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

TEST PIT STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TP-M
DATE COMPLETED: June 7, 2005
TEST PIT METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	714.40		
	ASPHALT	714.10		
	GRAVEL (FILL) underlayment, 2" cobbles, dry, gray	713.40		
2	SW-SAND (FILL), medium to coarse sands, debris, steel scraps, drum rim, solid yellow paint sludges, rubber gaskets, wood, plastics, clear glass, bricks, paper products, trace slag, drum fragments			
4				
6				
		707.40		
8	SP-SAND, medium grained, poorly graded, dense, brown, moist			
	- becoming gray, trace silty clays at 9.0ft BGS			
10				
	- wet at 11.5ft BGS			
12	END OF TEST PIT @ 12.0ft BGS	702.40		
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TRENCH 1
DATE COMPLETED: June 13, 2005
DRILLING METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.90		
0	ASPHALT	713.50		
	GP-GRAVEL WITH SANDS (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	712.40		
2	SP-SAND, medium grained, poorly graded, medium brown, brown, moist			
4				
6				
8	SM-SILTY SANDS, intermixing silty clays, some fine sands, gray, moist	706.60		
10	- wet, faint odors, slight sheen at 10.0ft BGS			
	- trace black fine sands at 11.0ft BGS			
12	CL-SILTY CLAY, trace fine sands, competent, stiff, low plasticity, gray, dry	702.10		
14				
16	END OF TEST PIT @ 15.9ft BGS	698.00		
	* NO EVIDENCE OF NAPL/DEBRIS			
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

STRATIGRAPHIC LOG

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: TRENCH 2
DATE COMPLETED: June 13, 2005
DRILLING METHOD: BACKHOE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL
	GROUND SURFACE	713.90		
0	ASPHALT	713.50		
	GP-GRAVEL (ASPHALT BASE), 2"-3" gravels, poorly graded, gray, dry	712.60		
2	SP-SAND, medium grained, poorly graded, light brown, moist			
4				
6				
8				
	SM-SILTY SANDS, some fine sands, dense, gray, moist	705.00		
10				
	END OF TEST PIT @ 10.5ft BGS	703.40		
12	* NO EVIDENCE OF DEBRIS			
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

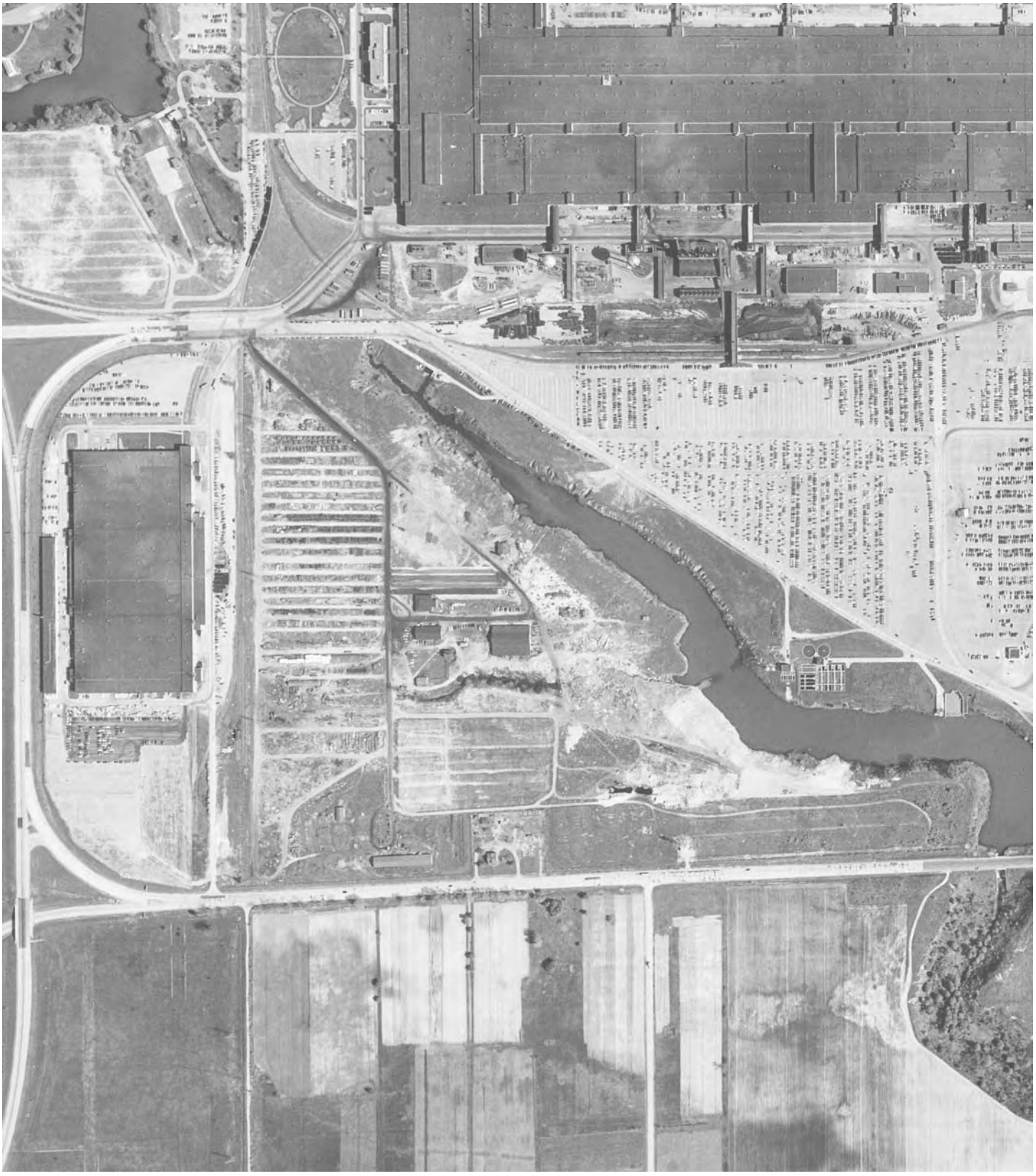
TEST PIT LOG 17303-TEST PITS.GPJ CRA_CORP.GDT 10/14/05

APPENDIX C

HISTORICAL SITE AERIAL PHOTOGRAPHS

1940

10/27/1949



HIG
HISTORICAL
INFORMATION
GATHERERS, INC.

Ypsilanti, Michigan

1952

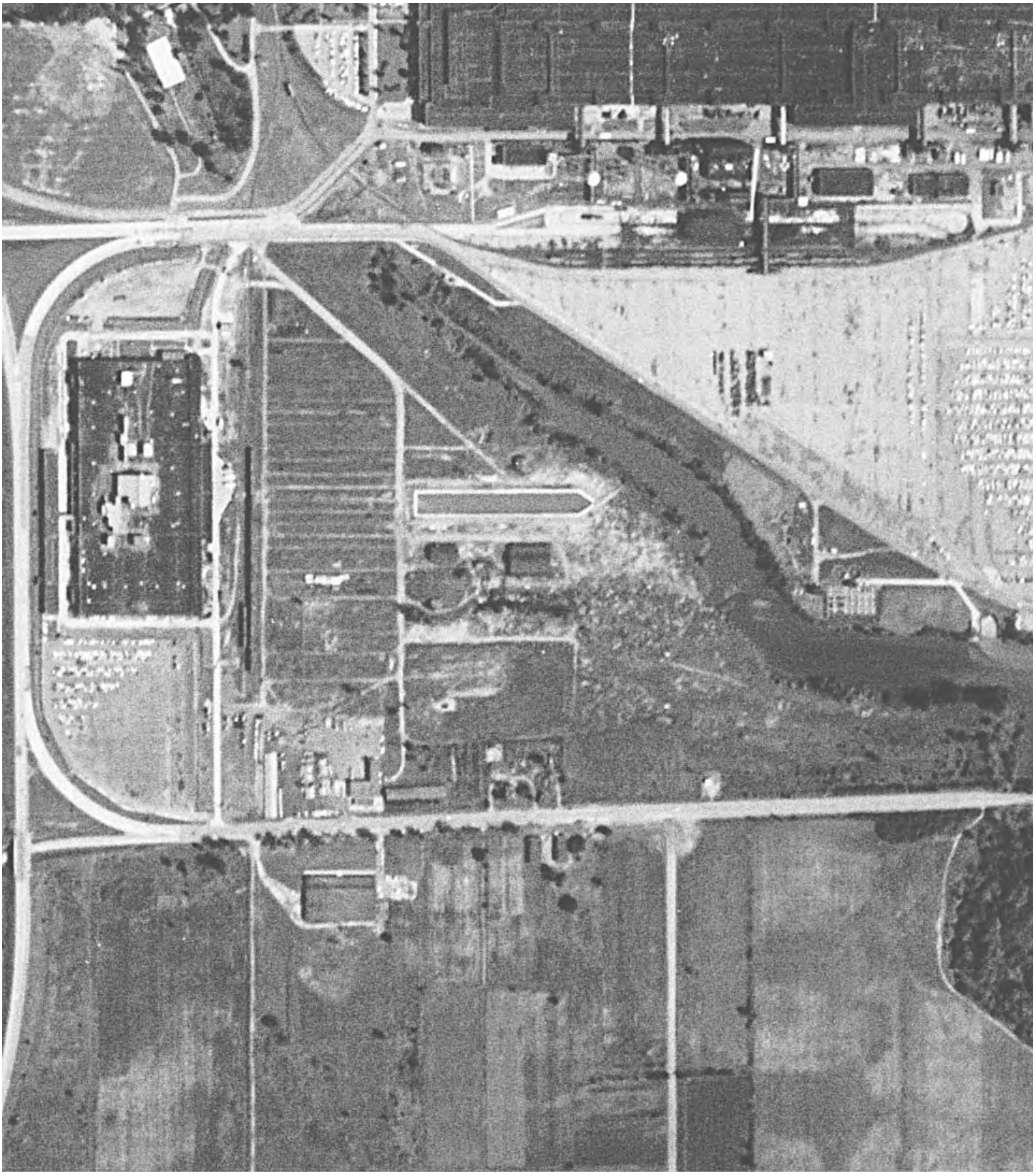
HIG Project Number: MAE-2191

Client Project Number: 17303

Approximate Scale 1:6000 (1"=500')

N
W E
S

9/6/1955



HISTORICAL INFORMATION GATHERERS, INC.

Ypsilanti, Michigan

1956

HIG Project Number: MAE-2191

Client Project Number: 17303

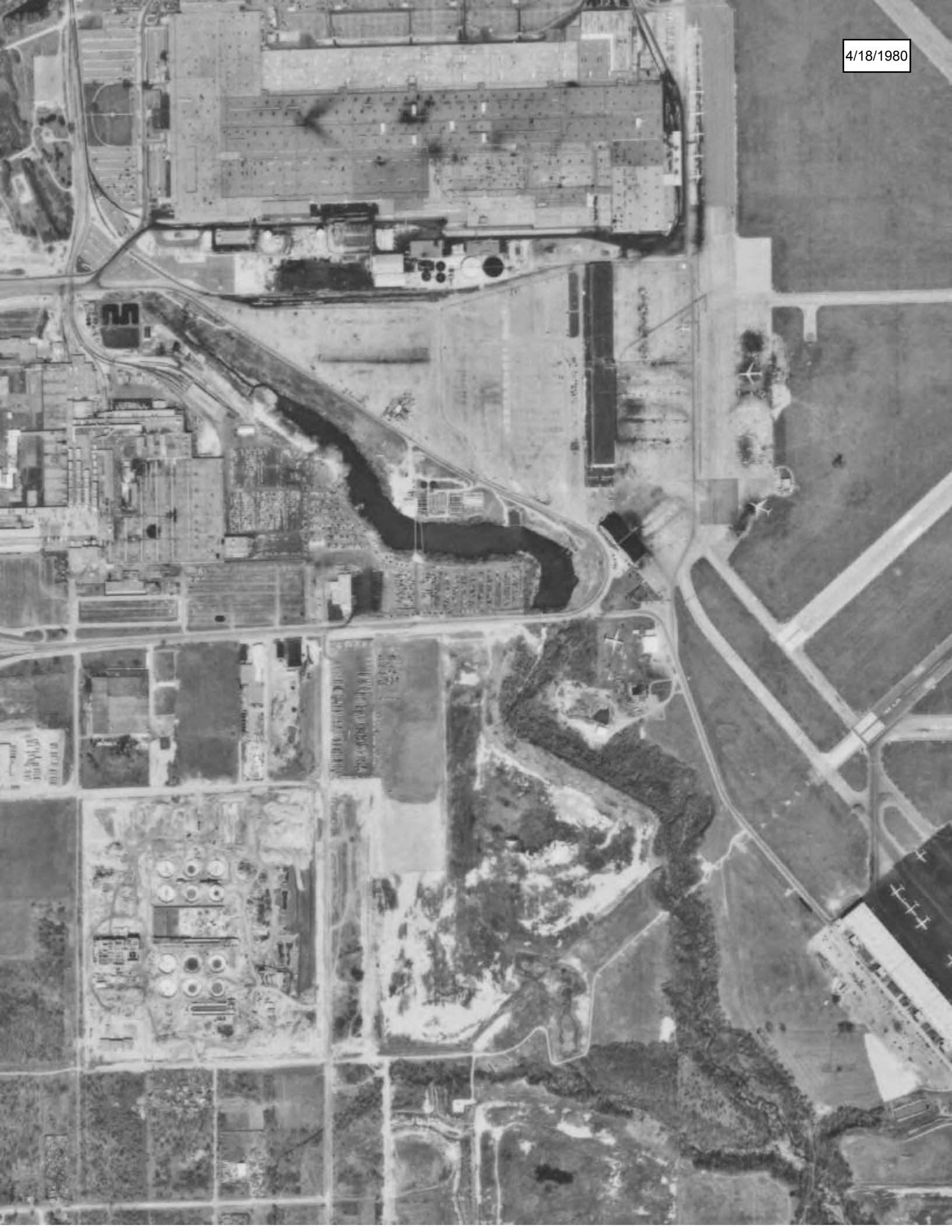
Approximate Scale 1:6000 (1"=500')

N W E S

9/29/1963

5/21/1969

1978


4/18/1980

4/29/1985

1990

1994

5/6/1995

1998

APPENDIX D

FACILITY SPECIFIC GENERIC GROUNDWATER-SURFACE WATER INTERFACE CRITERIA CALCULATIONS

APPENDIX D

FACILITY SPECIFIC GSI CRITERIA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location	Reference Point	Field Measurements		Laboratory Measurements		
		pH	$[H^+]$ ions	pH	$[H^+]$ ions	Hardness (mg
Outfall 11	1	6.98	1.05E-07	7.40	3.98E-08	370
	2	7.02	9.55E-08	7.20	6.31E-08	390
	3	7.31	4.90E-08	7.30	5.01E-08	380
Catwalks	4	7.40	3.98E-08	7.30	5.01E-08	990 [1]
	5	7.36	4.37E-08	7.10	7.94E-08	390
	6	7.32	4.79E-08	7.30	5.01E-08	380
Outfall 12	7	7.40	3.98E-08	7.30	5.01E-08	410
	8	7.37	4.27E-08	7.00	1.00E-07	430
	9	7.40	3.98E-08	7.20	6.31E-08	380
Average		**7.25**		**7.22**		**391.25**

[1] The hardness for Point 4 was not used in the average calculations as it is considered an outlier

- Average pH and hardness value obtained from surface water samples collected from Tyler Pond

LOC 3
LOC 2
LOC 1
OUTFALL #11
STM M.H.
CB 62
CB 64
C.B.
CB4
CB3
STM
STM MH 2
SAN M.H.
STORM MH3
CATWALKS
LOC 6
LOC 5
LOC 4
TYLER POND
LOC 9
LOC 8
LOC 7
SHEET PILE WALL
ABANDONED OUTFALL #12
OUTFALL #13
OUTFALL #14
MH 17
STM M.H.
STM MH 18
SAN M.H.
M.H.
CB5
SUMP
SHED
MH1
CB9
CB 11
CB-15
CB 14
CB 13
CB-12
CB16
CB10
CB
CB8
HAULAWAY BLDG.
MH6
TANK
STM MH 7
1FT RIM
36" FORCE MAIN
16" FORCE MAIN (OLD)
GUARD SHACK
SAN MH
BELL M.H.
TYLER POND OUTLET STRUCTU
TYLER ROAD

LEGEND

- DITCH, STREAM OR RIVER
- FENCE LINE
- TREE LINE
- SANITARY SEWER
- STORM SEWER
- FORMER SLUDGE LINE
- CB15 CATCH BASIN
- M.H. MANHOLE
- R.S. FENCE GATE POST
- PERMANENT SEWER PLUG
- LOC 1 SAMPLING LOCATION FOR □H AND HARDNESS

N

0 50 100ft

CRA

figure D.1

TYLER POND SAMPLING LOCATIONS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI048 MAY 20/2011

Calculation of Generic Facility-Specific Part 201 Groundwater Surface Water Interface (GSI) Criteria for {G} Footnoted Hazardous Substances

Directions for calculating generic facility-specific GSI criteria:

1. Enter **"hardness"** (Column C) or **"pH"** (Column D). Click the green check mark to the left of the Excel formula bar or press the "Enter" key.
2. The GSI criteria for surface water **not** protected as a source of drinking water are the lower of the final chronic value (FCV), wildlife value (WV), and the surface water human non-drinking water value (HNDV). These criteria are presented in Column L.
3. The GSI criteria for surface water protected as a source of drinking water are the lower of the FCV, WV, and surface water human drinking water value (HDV). Surface water protected as a source of drinking water includes the Great Lakes and their connecting waters, and inland surface water in close proximity to a water supply intake. These criteria are presented in Column M. Refer to Part 201 Criteria Application Guidesheet #3 for further guidance on selecting the applicable GSI criterion.
4. The final acute values (FAV) protective of aquatic life are presented in column E. The calculation of the FAV is provided to allow the identification of any exceedance of an acute GSI criterion. Where an exceedance of an acute GSI criterion exists, an evaluation must be done to determine appropriate action in accordance with provisions of R 299.5716, R 299.5526(4) and RRD Operational Memorandum No. 5.

Calculate GSI in ug/L (ppb)

Hazardous Substance	Chemical Abstract Service Number (CAS #)	* ENTER Hardness in mg CaCO3/L	* ENTER pH	Final Acute Value (FAV)	FAV Conversion Factor	Final Chronic Value (FCV)	FCV Conversion Factor	Wildlife Value (WV)	Surface Water Human Non-Drinking Water Value (HNDV)	Surface Water Human Drinking Water Value (HDV)	GSI Criteria for Surface Water Not Protected for Drinking Water Use	GSI Criteria for Surface Water Protected for Drinking Water Use
Acetate	71501	NA	**7.25**	148330.7713	NA	8.2E+3	NA	NA	1.3E+6	16,000	8.2E+3	8.2E+3
Acetic acid	64197	NA	**7.25**	148330.7713	NA	8.2E+3	NA	NA	1.3E+6	16,000	8.2E+3	8.2E+3
Barium	7440393	391.25	NA	10650.03707	NA	1.9E+3	NA	NA	1.6E+5	1,900	1.9E+3	1.9E+3
Beryllium	7440417	391.25	NA	1354.803398	NA	7.5E+1	NA	NA	1,200	160	7.5E+1	7.5E+1
Cadmium	7440439	391.25	NA	37.33247712	0.886914532	6.1E+0	0.851914532	NA	130	3	6.1E+0	2.5E+0
Chromium (III)	16065831	391.25	NA	3482.929736	NA	2.3E+2	0.86	NA	9,400	120	2.3E+2	1.2E+2
Copper	7440508	391.25	NA	97.18765393	NA	2.9E+1	0.96	NA	38,000	470	2.9E+1	2.9E+1
Lead	7439921	391.25	NA	779.36254	0.592236486	4.4E+1	0.592236486	NA	190	14	4.4E+1	1.4E+1
Manganese	7439965	391.25	NA	27597.32642	NA	6.4E+3	NA	NA	59,000	1,300	6.4E+3	1.3E+3
Nickel	7440020	391.25	NA	2969.689027	NA	1.6E+2	0.997	NA	2.1E+5	2,600	1.6E+2	1.6E+2
Zinc	7440666	391.25	NA	744.5120713	NA	3.8E+2	0.986	NA	16,000	3,300	3.8E+2	3.8E+2
Pentachlorophenol	87865	NA	**7.25**	22.42995137	NA	8.6E+0	NA	NA	2.8	1.8	2.8E+0	1.8E+0

NA = Criterion or value is not available or not applicable.

* The formulas in this spreadsheet depend upon appropriate entries in these cells. Do not leave these cells blank. If numeric hardness or pH values are not available, enter the word "hardness" or "pH" in the appropriate cell.

Calculation of Generic Facility-Specific Part 201 Soil GSI Protection Criteria (GSI PC)

Directions for calculating a generic facility-specific soil GSI PC:

1. Manually type in the **"GSI"** criterion calculated on the previous page, rounded to 2 significant figures. DO NOT CUT AND PASTE as this will enter the unrounded value and generate a different value. Click the green check mark to the left of the Excel formula bar or press the "Enter" key.
2. The GSI PC will calculate and appear in Column W. The GSI PC are the higher of the Soil-Water Partition Value for GSI (Column U) and the 20 X GSI value (Column V).

Calculate Soil GSI PC in ug/Kg (ppb)

Hazardous Substance	Chemical Abstract Service Number (CAS #)	* ENTER GSI	Soil-Water Distribution Coefficients (Kd) L/Kg	Henry's Law Constant (HLC) atm-m3/mol	Soil Organic Carbon-Water Partition Coefficient (Koc) L/Kg	Soil-Water Partition Value for GSI ug/Kg	20 X GSI ug/Kg	Soil GSI PC ug/Kg
Acetate	71501	8200	NA	NA	NA	NA	1.6E+5	1.6E+5
Acetic acid	64197	8200	NA	NA	NA	NA	1.6E+5	1.6E+5
Barium	7440393	1900	41	NA	NA	1.2E+6	3.8E+4	1.2E+6
Beryllium	7440417	75	790	NA	NA	9.5E+5	1.5E+3	9.5E+5
Cadmium	7440439	6.1	75	NA	NA	7.3E+3	1.2E+2	7.3E+3
Chromium (III)	16065831	230	1.8E+6	NA	NA	6.6E+9	4.6E+3	6.6E+9
Copper	7440508	29	360	NA	NA	1.7E+5	5.8E+2	1.7E+5
Lead	7439921	44	11,000	NA	NA	7.7E+6	8.8E+2	7.7E+6
Manganese	7439965	6400	NA	NA	NA	NA	1.3E+5	1.3E+5
Nickel	7440020	160	65	NA	NA	1.7E+5	3.2E+3	1.7E+5
Zinc	7440666	380	62	NA	NA	3.8E+5	7.6E+3	3.8E+5
Pentachlorophenol	87865	2.8	NA	2.44E-8	592	2.7E+4	5.6E+1	2.7E+4

NA = Criterion or value is not available or not applicable.

* The formulas in this spreadsheet depend upon appropriate entries in these cells. Do not leave these cells blank. If numeric GSI values are not available, enter "GSI" in the appropriate cell.

APPENDIX E

SOIL GAS AND INDOOR AIR
CRITERIA DEVELOPMENT AND INVESTIGATION RESULTS

APPENDIX E

APPENDIX OF CONTENTS

APPENDIX E.1 SITE SPECIFIC SOIL GAS CRITERIA DEVELOPMENT

APPENDIX E.2 INDOOR AIR SAMPLING EVENT

APPENDIX E.1

SOIL GAS CRITERIA DEVELOPMENT
HAULAWAY BUILDING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

1.0 INTRODUCTION

This Appendix summarizes the development of Site-specific soil gas criteria in 2005 for the Company Vehicle Operations Area (Site) in Ypsilanti, Michigan. Vapor probe installation and sampling activities have been conducted at the Site. The laboratory analysis of soil gas samples has detected the presence of volatile organic compounds (VOCs) in the unsaturated soil, or vadose zone, beneath the Site.

The development of Site-specific soil gas criteria was conducted to evaluate whether the VOCs detected in soil gas pose potential human health risks above acceptable levels through an industrial indoor air inhalation exposure scenario. The Site-specific soil gas criteria were developed using the Johnson and Ettinger (1991) model (J&E Model) as adopted by the United States Environmental Protection Agency (USEPA) (USEPA, 2003, 2004). The Site-specific soil gas criteria were developed following the approach outlined in USEPA's *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (USEPA, 2002).

A screening assessment of the soil gas data collected at the Site is presented in Section 2.0 to identify Compounds of Potential Concern (COPCs) in soil gas based on the vapor intrusion pathway. Site-specific soil gas criteria were then developed for the identified COPCs. The methodology for developing the Site-specific soil gas criteria is presented in Section 3.0. The Site-specific input parameters applied in the development of the Site-specific soil gas criteria, and the results obtained, are described in Section 4.0. The conclusions reached from comparing the Site-specific soil gas criteria to the VOC concentrations detected in soil gas are presented in Section 5.0. All references cited in the Memorandum are listed in Section 6.0.

2.0 SOIL GAS QUALITY SCREENING ASSESSMENT

Eight soil vapor probes (GP19-01D, GP19-01S, GP19-02D, GP19-02S, GP19-03D, GP19-03S, GP19-04D, and GP19-04S) have been installed and sampled at the Site (see Figure E.1). These soil vapor probes were installed in May 2005, and the stratigraphic and instrumentation logs for GP19-01D, GP19-02D, GP19-03D, and GP19-04D are

included in Attachment A. Stratigraphic and instrumentation logs for GP19-01S, GP19-02S, GP19-03S, and GP19-04S are not included as these subslab probes were located adjacent to their corresponding deep probes and, therefore, contain the same lithology as GP19-01D, GP19-02D, GP19-03D, and GP19-04D, respectively. Soil gas samples were collected from the eight soil vapor probes using Summa™ canisters on June 7, 2005. Prior to this current study, in May 2004, soil gas screening samples were collected from two temporary soil vapor probes at SB19-18 and SB19-19. Soil gas screening samples were collected from the two temporary soil vapor probes on May 18, 2004, also using Summa™ canisters. The soil gas samples were analyzed for VOCs using USEPA Method TO-14A. The vapor probe installation and soil gas sampling in 2005 were conducted consistent with the protocols outlined in the Supplemental Phase III EOC Work Plan – Addendum No. 2 submitted to the Michigan Department of Environmental Quality (MDEQ) on April 13, 2005. The temporary vapor probe installation and soil gas sampling in 2004 were conducted consistent with the protocols outlined in the EOC Supplemental Phase III EOC Work Plan – Addendum No. 1 submitted to MDEQ in April, 2004.

The soil gas sample analytical results, including the results obtained for the two soil gas screening samples from the temporary soil vapor probes, are summarized in Table E.1.1. The VOC concentrations detected in the soil gas samples were compared to MDEQ's Part 201/213 soil gas screening concentrations. The MDEQ soil gas screening concentrations correspond to the Industrial and Commercial II, III, and IV Acceptable Indoor Air Concentrations (AIACs) presented in MDEQ (2003), multiplied by a generic soil gas attenuation factor of 10. The Industrial and Commercial II, III, and IV AIACs are based on a target risk level of 1×10^{-5} for carcinogenic compounds and target hazard quotient of 1.0 for noncarcinogenic compounds, and a typical industrial/commercial exposure scenario. Consistent with MDEQ's "Guidance for Collection and Analysis of Air Samples/Soil Gas for Indoor Air Inhalation" (dated January 2004), AIAC values are multiplied by a factor of 10 to develop soil gas screening concentrations for chlorinated VOCs, and by a factor of 100,000 to develop soil gas screening concentrations for non-chlorinated VOCs. However, as a conservative approach, the AIAC values for all VOCs were multiplied by a factor of 10 to develop the soil gas screening concentrations for this study. The factor of 10 represents a conservatively low generic soil gas attenuation factor, which represents the degree of attenuation that would occur as a volatile chemical migrates from soil gas to indoor air. VOCs detected above the MDEQ soil gas screening concentrations were identified as COPCs.

As indicated in Table E.1.1, the VOCs detected in soil gas above the MDEQ soil gas screening concentrations include 1,1,2-trichloroethane (1,1,2-TCA), 1,1-dichloroethene (1,1-DCE), benzene, chloroform, chloromethane, cis-1,2-dichloroethene (c-DCE),

ethylbenzene, methylene chloride, tetrachloroethene (PCE), toluene, trans-1,2-dichloroethene (t-DCE), trichloroethene (TCE), vinyl chloride (VC), and xylenes. Thus, these compounds were identified as COPCs for the Site. These COPCs are consistent with the VOCs detected in vadose zone soil samples collected during the installation of the soil vapor probes.

Site-specific soil gas criteria were then developed for the identified COPCs. The Site-specific soil gas criteria were developed considering the vadose zone stratigraphy present at the Site. The criteria were developed based on an industrial exposure setting and the industrial building currently occupying the Site. This building consists of slab-on-grade construction, and is 225 feet (68.6 meters) in length, 120 feet (36.6 meters) in width, and 18 feet (5.5 meters) in height. The details of the vadose zone and building properties applied in the Site-specific soil gas criteria development are described in detail in Section 4.0. The methodology applied to develop the Site-specific soil gas criteria is presented in Section 3.0.

3.0 METHODOLOGY

The Site-specific soil gas criteria were developed using the J&E Model as adopted by USEPA (2004). Johnson and Ettinger (1991) present a model for estimating the degree of attenuation occurring as volatile contaminants in soil vapor migrate upward through the vadose zone, enter an overlying building, and mix with the indoor air of the building. The degree of attenuation is quantified through the calculation of an attenuation factor, α, after Johnson and Ettinger (1991; Equation 21). Site-specific soil gas criteria were calculated based on AIACs and the Site-specific attenuation factor as follows:

$$C_{sg} = AIAC / \alpha$$

Where:

C_{sg} - the allowable Site-specific soil gas criteria that would not result in an indoor air concentration greater than the AIAC [micrograms per cubic meter ($\mu g/m^3$)];

$AIAC$ - the Industrial and Commercial II, III, and IV Acceptable Indoor Air Concentration (AIAC) as presented in MDEQ (2003) ($\mu g/m^3$); and

α - the Site-specific calculated soil gas attenuation factor which relates the indoor air concentration to the concentration in soil gas based on the model developed by Johnson and Ettinger (1991; Equation 21), and accounts for the advective-diffusive migration of contaminants in soil gas through the unsaturated zone soil and building foundation, followed by the mixing of the intruding vapors with building indoor air.

The development of the Site-specific soil gas criteria was conducted through the application of the J&E Model incorporated into a Microsoft Excel spreadsheet by the USEPA (USEPA, 2004; "SG-ADV-Feb04.xls, Version 3.1"). The USEPA adoption of the J&E Model has undergone extensive peer review and is widely accepted by regulatory agencies throughout the United States. The Site-specific compound, vadose zone soil, and building properties applied in the development of the Site-specific soil gas criteria are presented in Section 4.0.

4.0 CALCULATION OF SITE-SPECIFIC SOIL GAS CRITERIA

4.1 SITE-SPECIFIC INPUT PARAMETERS

The Site-specific soil gas criteria were developed using the J&E Model with Site-specific compound, vadose zone soil, and building properties. The development of the Site-specific soil gas criteria was based on the slab-on-grade industrial building overlying the unsaturated Silty Sand Unit comprising the vadose zone beneath the Site. The current industrial/commercial use of the Site is expected to continue, and the existing industrial building will remain in place at the Site. A description is provided below of the Site-specific compound, vadose zone soil, and building properties applied to develop the Site-specific soil gas criteria.

Target Indoor Air Concentrations

Site-specific soil gas criteria were developed for the COPCs 1,1,2-TCA, 1,1-DCE, benzene, chloroform, chloromethane, c-DCE, ethylbenzene, methylene chloride, PCE, toluene, t-DCE, TCE, VC, and xylenes. The Site-specific criteria are based on the Industrial and Commercial II, III, and IV AIACs presented in MDEQ (2003). Indoor air concentrations equal to or less than the AIACs represent the situation where health risks/hazards are not present above acceptable levels through the industrial indoor air inhalation exposure scenario.

The AIACs, as obtained from MDEQ (2003), were applied as follows:

COPC	*AIAC* ($\mu g/m^3$)
1,1,2-TCA	6.2
1,1-DCE	2
Benzene	12
Chloroform	41
Chloromethane	130
c-DCE	51
Ethylbenzene	320
Methylene Chloride	210
PCE	170
Toluene	600
t-DCE	100
TCE	58
VC	23
Xylenes	6,600

Compound Properties

The compound properties applied in the development of the Site-specific soil gas criteria consist of a Henry's Law constant, a water diffusion coefficient, and an air diffusion coefficient. The applied compound properties for all COPCs were obtained from the chemical properties database developed in USEPA (2004). The Henry's Law constants and air diffusion coefficients for each compound were corrected to a vadose zone temperature of 16.7 degrees Celsius. This temperature corresponds to the average groundwater temperature measured across the Site during groundwater sampling events conducted in June, 2005 (see Table E.1.2).

Vadose Zone Soil Properties

During vapor probe installation, and the installation of monitoring well MW19-25, soil samples were collected for the analysis of soil physical properties. The vadose zone beneath the Site was found to consist of a Silty Sand Unit containing a mixture of fine- to coarse-grained material. The average depth to the water table beneath the Site is 11 feet

(3.4 meters) (see Table 3.1.3). As indicated in the stratigraphic logs for the vapor probes presented in Attachment A, the groundwater table was not encountered near the screened intervals of the soil gas vapor probes. The stratigraphic log for monitoring well MW19-25 is also included in Attachment A.

The Site-specific vadose zone soil physical properties applied in the development of the Site-specific soil gas criteria consisted of the following:

- Soil moisture content, θ_m :

  A moisture content value of 6.8 percent was applied and corresponds to the average moisture content measured in vadose zone soil samples (see Table E.1.4).

- Dry bulk soil density, δ_{db} :

  A dry bulk soil density value of 1.724 g/cm^3 was applied and corresponds to the average dry bulk density measured in vadose zone soil samples (see Table E.1.4).

- Porosity, ε_T :

  A porosity value of 27 percent was applied based on the average porosity value for sand soils, as presented in Fetter (2001; Table 3.4).

- Hydraulic conductivity (K), which is converted to a vadose zone effective vapor permeability, k_V :

  A hydraulic conductivity value of 7.29×10^{-3} centimetres per second (cm/s) was applied and corresponds to the geometric mean of the hydraulic conductivity values determined from grain size analyses conducted on soil samples collected at the Site (see Table E.1.4). The hydraulic conductivity value was converted to an intrinsic permeability k_i by the equation $k_i = K \cdot \mu_w / \rho_w \cdot g$, where water density (ρ_w) equals 998.774 kg/m^3 at 17°C, gravitational acceleration (g) equals 9.81 m/s^2, and the dynamic viscosity of water (μ_w) equals 1.08E-3 kg/ms at 17°C (Fetter, 2001). A relative vapor permeability, k_r , was determined after Parker et al. (1987) for a loamy sand soil type as implemented in USEPA (2004). The loamy sand soil classification implemented in USEPA (2004) is consistent with the silty sand observed at the soil gas probe locations. The effective vapor permeability is equal to the product of k_i and k_r .

Building Properties

The building properties applied in the development of the Site-specific soil gas criteria were based on the industrial building currently occupying the Site. This building is 225 feet (68.6 meters) in length, 120 feet (36.6 meters) in width, and 18 feet (5.5 meters) in height with slab-on-grade construction. The applied building properties consisted of the following:

- Below grade building surface area, A_B :

  A below grade building surface area of 2,508 square meters (m^2) was applied based on a 68.6 meters long by 36.6 meters wide building with slab-on-grade construction.
- Building volume, V_B :

  A building volume of 13,762 cubic meters (m^3) was applied, based on a 68.6 meters long by 36.6 meters wide building, with a height of 5.5 meters.
- Building indoor air exchange rate, T_{air} :

  A building indoor air exchange rate value of 0.83 building volumes per hour was applied, consistent with the industrial enclosed-space air exchange rates reported in the American Society for Testing and Materials (ASTM) Standard Guide in Risk-Based Corrective Action at Petroleum Release Sites (ASTM, 1995). The application of this exchange rate is highly conservative as the building under consideration is a maintenance garage with garage doors lining the entire east wall. During the winter, these doors open and close several times a day. During the summer, these doors are open throughout the workday. Thus, a much higher rate of air exchange than 0.83 building volumes per hour would be expected for the building.
- Foundation thickness, L_{crack} :

  The default foundation thickness of 6 inches (15 centimeters) was applied based on the floor slab thickness observed during vapor probe installation, as indicated on the stratigraphic logs presented in Attachment A.
- Distance from the building floor to the source, L_T :

  A distance of 5 feet (1.53 meters) was applied, based on the average depth of the mid-point of the vapor probe screened intervals, 5.5 feet (1.68 meters), less a 0.5 foot (0.15 meter) floor slab thickness.
- Ratio of building crack area to building below-grade area, η :

  A ratio of 0.00038 (or 0.038 percent) was applied, consistent with the mean value for slab-on-grade structures presented in USEPA (2002; Appendix G).

- Vadose zone/building pressure differential, ΔP:
  A pressure differential value of 4 Pascal (Pa) was applied, consistent with the default pressure differential presented in USEPA (2002; Appendix G).

4.2 SITE-SPECIFIC CRITERIA RESULTS

The Site-specific soil gas criteria determined for the Site are presented in Table E.1.5. The applied chemical, vadose zone soil, and building properties described above are summarized in Table E.1.5.

It is important to note that the J&E Model used to develop the Site-specific soil gas criteria incorporates several conservative assumptions. The key conservative aspects incorporated into the development of the Site-specific soil gas criteria are described below:

- The J&E Model assumes that all contaminant vapors below a building migrate vertically upward into the building and do not move laterally, or in three-dimensions, around the building to vent to the atmosphere [Interstate Technology & Regulatory Council (ITRC), 2003; USEPA, 2002; and USEPA, 2004].
- The J&E Model assumes that no contaminant vapors migrate around the sides of buildings through preferential pathways, such as granular foundation bedding material, to vent to the atmosphere (ITRC, 2003; and USEPA, 2002; and USEPA, 2004).
- The Site-specific criteria are developed assuming a constant and continuous source of COPCs in soil gas (USEPA, 2002; and USEPA, 2004). Source depletion due to naturally occurring biological or chemical degradation of contaminants is not considered. Also, the source of the COPCs is assumed to be infinite, or to extend beneath the entire footprint of the building (USEPA, 2002; and USEPA, 2004).

All of the conservative aspects described above lead to the prediction of a higher level of exposure to COPCs in soil gas potentially entering indoor air than would actually occur.

5.0 CONCLUSIONS

The Site-specific soil gas criteria calculated in 2005 for the COPCs were compared to the maximum COPC concentrations detected at the Site, as shown in Table E.1.5. The maximum detected concentration of each COPC is below its corresponding Site-specific

soil gas criterion for most COPCs, with the exception of c-DCE and TCE. Accordingly, potential risks above acceptable levels may be present at the Site through the indoor air inhalation exposure pathway. However, as described below, this conclusion may be a result of the conservative nature of the Site-specific soil gas criteria developed herein.

The Site-specific soil gas criterion for c-DCE is exceeded only at GP19-03D, and the Site-specific soil gas criterion for TCE is exceeded at GP19-03D, GP19-04S, and GP19-04D. The detected c-DCE and TCE concentrations at all other locations are below the Site-specific soil gas criteria. As described in Section 4.2, the Site-specific soil gas criteria are based on several conservative assumptions that ultimately predict a much higher level of exposure to COPCs in soil gas potentially entering indoor air than would actually occur. Therefore, comparing the measured soil gas quality data to the Site-specific soil gas criteria developed herein leads to a highly conservative assessment. The conservative assumption that the soil gas impact is present beneath the entire building footprint is perhaps one of the more significant assumptions in the case of the Site. The detected concentrations of c-DCE and TCE are above the Site-specific soil gas criteria at only three out of eight vapor probes, and two of these (GP19-04S and GP19-04D) are in the same relative spatial location. This demonstrates that the soil gas concentrations of concern are not necessarily present beneath the entire building footprint. Another significant assumption is that the air exchange rate of the building is only 0.83 building volumes per hour. Given that the building is continually open to ambient air through the garage doors, a much higher air exchange rate would more accurately reflect the conditions at the Site. Thus, the detected soil gas concentrations are not likely impacting indoor air quality to the degree predicted by the J&E Model. Indoor air quality testing could potentially be conducted to demonstrate that actual COPC levels in indoor air are not above MDEQ's Industrial and Commercial II, III, and IV AIACs, and that risks to workers within the Site building through the inhalation of indoor air are not present above acceptable levels.

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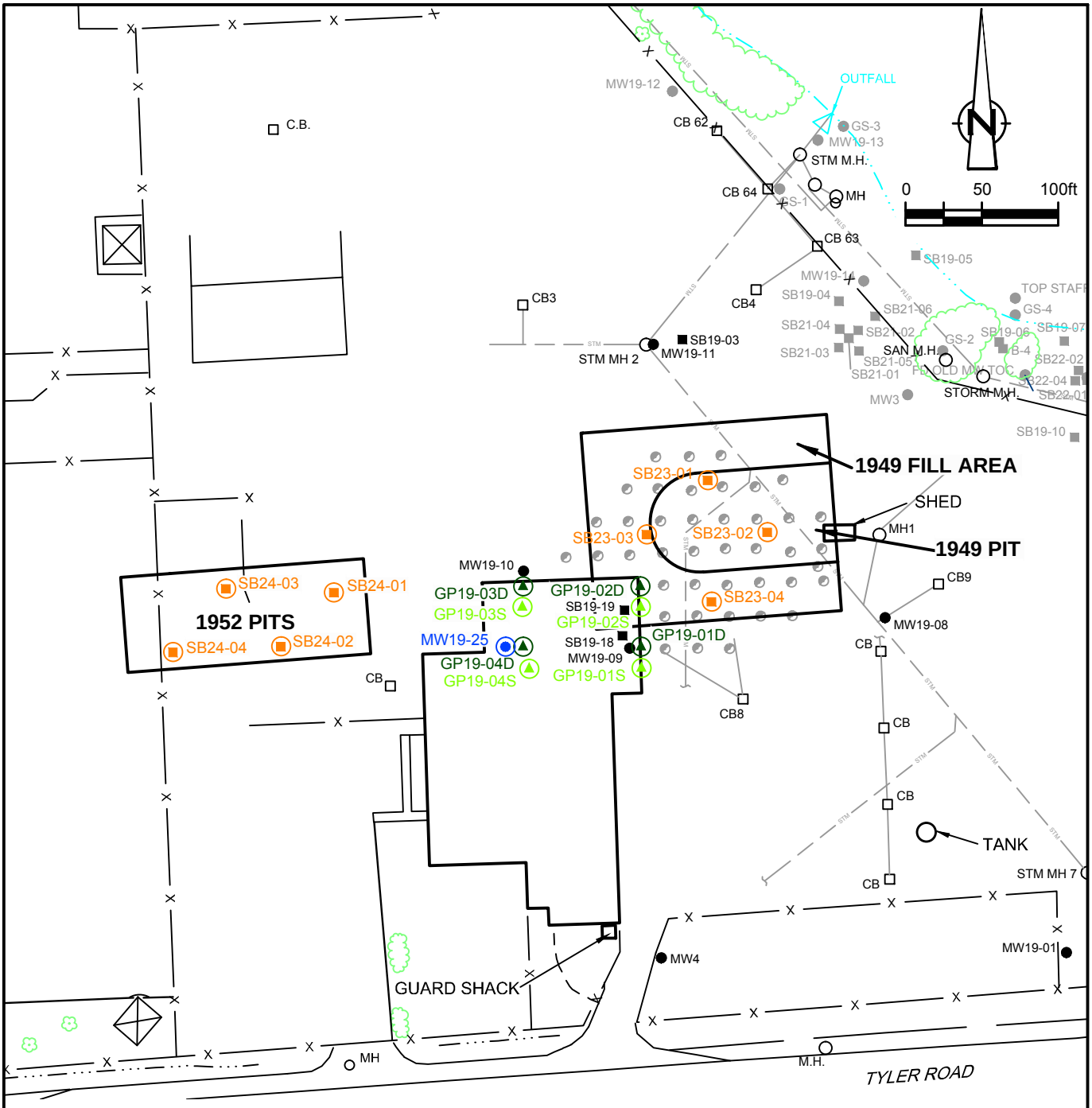


LEGEND

DITCH, STREAM OR RIVER	MH	MANHOLE	MW19-25	PROPOSED MONITORING WELL LOCATION
FENCE LINE (SURVEYED)	CB4	CATCHBASIN	SB23-02	PROPOSED MIP BOREHOLE LOCATION
STORM SEWER		INJECTION WELL LOCATION	GP19-01D	PROPOSED DEEP SOIL GAS PROBE LOCATION
VEGETATION	SB19-18	BOREHOLE LOCATION	GP19-01S	PROPOSED SUB-SLAB VAPOR PROBE LOCATION
TREE	MW19-09	MONITORING WELL LOCATION		

figure E.1
SAMPLING LOCATIONS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS
COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI047 MAY 20/2011

TABLE E.1.1

SOIL GAS SAMPLE ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Sample Location:	*SB19-18* [2]	*SB19-19* [2]	*GP19-01D*	*GP19-01S*	*GP19-02D*	*GP19-02S*
	Sample ID:	*SG-17303-051804-DCR-327*	*SG-17303-051804-DCR-326*	*GS-17303-060705-DN-0748*	*GS-17303-060705-DN-0750*	*GS-17303-060705-DN-0754*	*GS-17303-060705-DN-0757*
	Sample Date:	*5/18/2004*	*5/18/2004*	*6/7/2005*	*6/7/2005*	*6/7/2005*	*6/7/2005*
VOCs	*MDEQ Soil Gas Screening Criteria* [1]						
1,1,1-Trichloroethane	15000	4100 U	410 U	2200 U	1100 U	210 U	21 U
1,1,2,2-Tetrachloroethane	17	5200 U	520 U	2700 U	1400 U	270 U	26 U
1,1,2-Trichloroethane	62	4100 U	410 U	2200 U	1100 U	210 U	21 U
1,1-Dichloroethane	7500	3000 U	300 U	1600 U	810 U	160 U	16 U
1,1-Dichloroethene	20	**12000**	**1200**	**4500**	**2000**	**680**	**53**
1,2,4-Trichlorobenzene	5500	14000 U	1400 U	7300 U	3700 U	720 U	71 U
1,2,4-Trimethylbenzene	18000	3600 U	360 U	1900 U	980 U	190 U	19 U
1,2-Dibromoethane (Ethylene Dibromide)	4.5	5500 U	550 U	3000 U	1500 U	300 U	29 U
1,2-Dichlorobenzene	22000	4400 U	440 U	2400 U	1200 U	230 U	23 U
1,2-Dichloroethane	38	3000 U	300 U	1600 U	810 U	160 U	16 U
1,2-Dichloropropane	60	3400 U	340 U	1800 U	920 U	180 U	18 U
1,2-Dichlorotetrafluoroethane (CFC 114)	NA	5200 U	520 U	2800 U	1400 U	270 U	27 U
1,3,5-Trimethylbenzene	18000	3600 U	360 U	1900 U	980 U	190 U	19 U
1,3-Dichlorobenzene	NA	4400 U	440 U	2400 U	1200 U	230 U	23 U
1,4-Dichlorobenzene	140	4400 U	440 U	2400 U	1200 U	230 U	23 U
2-Butanone (Methyl Ethyl Ketone)	15000	11000 U	1100 U	5800 U	2900 U	580 U	56 U
2-Hexanone	600	15000 U	1500 U	8100 U	4100 U	800 U	79 U
4-Ethyl toluene [3]	3200	3600 U	360 U	1900 U	980 U	190 U	14 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	31000	15000 U	1500 U	8100 U	4100 U	800 U	79 U
Acetone	88000	2900 J	260 J	4700 U	2400 U	460 U	99
Benzene	120	2400 U	240 U	1300 U	**290 J**	120 U	12 U
Benzyl Chloride	20	19000 U	1900 U	10000 U	5200 U	1000 U	99 U
Bromodichloromethane	27	4800 U	480 U	2700 U	1300 U	260 U	26 U
Bromoform	900	2900 U	290 U	4100 U	2100 U	400 U	40 U
Bromomethane (Methyl Bromide)	75	2900 U	290 U	1500 U	780 U	150 U	15 U
Carbon disulfide	10000	11000 U	1100 U	6200 U	3100 U	610 U	60 U
Carbon tetrachloride	42	4800 U	480 U	2500 U	1300 U	250 U	24 U
Chlorobenzene	1000	3400 U	340 U	1800 U	920 U	180 U	18 U
Chloroethane	150000	4100 U	410 U	2100 U	1000 U	210 U	20 U
Chloroform (Trichloromethane)	410	3600 U	150 J	1900 U	**1100**	110 J	10 J
Chloromethane (Methyl Chloride)	1300	3000 U	300 U	1600 U	820 U	160 U	16 U
cis-1,2-Dichloroethene	510	**200000**	**10000**	**63000**	**20000**	**4200**	85
cis-1,3-Dichloropropene	NA	3400 U	340 U	1800 U	910 U	180 U	17 U
Dibromochloromethane	41	6300 U	630 U	3400 U	1700 U	330 U	33 U
Dichlorodifluoromethane (CFC-12)	740000	3700 U	370 U	2000 U	990 U	190 U	19 U
Ethylbenzene	3200	3200 U	320 U	1700 U	870 U	170 U	11 J
Hexachlorobutadiene	45	16000 U	1600 U	8400 U	4300 U	830 U	82 U
m&p-Xylene [4]	66000	3200 U	320 U	1700 U	870 U	170 U	38
Methylene chloride	2100	2600 U	260 U	2200 U	1100 U	210 U	21 U
o-Xylene [4]	66000	3200 U	320 U	1700 U	870 U	170 U	9.3 J
Styrene	1700	3100 U	310 U	1700 U	850 U	170 U	16 U
Tetrachloroethene	1700	**2200 J**	520 U	2700 U	720 J	260 U	14 J
Toluene	6000	2800 U	280 U	1500 U	350 J	87 J	17
trans-1,2-Dichloroethene	1000	**11000**	**1600**	**5400**	**4500**	1000	68
trans-1,3-Dichloropropene	NA	3400 U	340 U	1800 U	910 U	180 U	17 U
Trichloroethene	580	**630000**	**78000**	**180000**	**780000**	**37000**	**2800**
Trichlorofluoromethane (CFC-11)	840000	4100 U	410 U	2200 U	1100 U	220 U	22 U
Trifluorotrichloroethane (Freon 113)	1100000	5500 U	550 U	3000 U	1500 U	300 U	29 U
Vinyl acetate	3000	13000 U	1300 U	7000 U	3500 U	690 U	67 U
Vinyl chloride	230	1900 U	190 U	1000 U	510 U	100 U	9.8 U
Xylene (total)	66000	3200 U	320 U	1700 U	870 U	170 U	48

Notes:
All results and criteria reported in units of µg/m^3.
U = Not present at or above the associated value
J = Estimated concentration
NA = Not Available
bold = Detected value exceeds soil gas criteria

(1) The applied soil gas criteria is the Industrial and Commercial II, III, and IV Acceptable Indoor Air Concentration (AIAC) (MDEQ, 2003), multiplied by the generic soil gas attenuation factor value of 10.
(2) Soil gas screening sample collected using temporary soil vapor probe.
(3) Soil gas criteria for ethylbenzene is applied as a surrogate value, due to the lack of criteria for 4-ethyl toluene.
(4) Soil gas criteria for xylene (total) is applied, due to the lack of criteria for specific xylene isomers.

TABLE E.1.1

SOIL GAS SAMPLE ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Sample Location:	*GP19-03D*	*GP19-03S*	*GP19-04D*	*GP19-04S*	*Ambient Conditions Blank*	*Field Blank*
	Sample ID:	*GS-17303-060705-DN-0753/-0755*	*GS-17303-060705-DN-0756*	*GS-17303-060705-DN-0749*	*GS-17303-060705-DN-0751*	*GS-17303-060705-DN-0752*	*GS-17303-060705-DN-0758*
	Sample Date:	*6/7/2005*	*6/7/2005*	*6/7/2005*	*6/7/2005*	*6/7/2005*	*6/7/2005*
VOCs	***MDEQ Soil Gas Screening Criteria*** [1]						
1,1,1-Trichloroethane	15000	10000 U/11000 U	2100 U	11000 U	11000 U	11 U	11 U
1,1,2,2-Tetrachloroethane	17	13000 U/14000 U	2600 U	14000 U	14000 U	14 U	14 U
1,1,2-Trichloroethane	62	**10000 U/12000**	2100 U	11000 U	11000 U	11 U	11 U
1,1-Dichloroethane	7500	7600 U/8500 U	1500 U	8400 U	8000 U	8.1 U	8.1 U
1,1-Dichloroethene	20	**11000/26000**	1500 U	**3500 J**	**2900 J**	7.9 U	7.9 U
1,2,4-Trichlorobenzene	5500	35000 U/39000 U	7000 U	38000 U	37000 U	37 U	37 U
1,2,4-Trimethylbenzene	18000	9200 U/10000 U	1900 U	10000 U	9800 U	9.8 U	9.8 U
1,2-Dibromoethane (Ethylene Dibromide)	4.5	14000 U/16000 U	2900 U	16000 U	15000 U	15 U	15 U
1,2-Dichlorobenzene	22000	11000 U/13000 U	2300 U	12000 U	12000 U	12 U	12 U
1,2-Dichloroethane	38	7600 U/8500 U	1500 U	8400 U	8000 U	8.1 U	8.1 U
1,2-Dichloropropane	60	8700 U/9700 U	1700 U	9500 U	9200 U	9.2 U	9.2 U
1,2-Dichlorotetrafluoroethane (CFC 114)	NA	13000 U/15000 U	2700 U	14000 U	14000 U	14 U	14 U
1,3,5-Trimethylbenzene	18000	9200 U/10000 U	1900 U	10000 U	9800 U	9.8 U	9.8 U
1,3-Dichlorobenzene	NA	11000 U/13000 U	2300 U	12000 U	12000 U	12 U	12 U
1,4-Dichlorobenzene	140	11000 U/13000 U	2300 U	12000 U	12000 U	12 U	12 U
2-Butanone (Methyl Ethyl Ketone)	15000	28000 U/31000 U	5600 U	30000 U	29000 U	29 U	29 U
2-Hexanone	600	38000 U/43000 U	7800 U	42000 U	41000 U	41 U	41 U
4-Ethyl toluene [3]	3200	9200 U/10000 U	1900 U	10000 U	9800 U	9.8 U	9.8 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	31000	38000 U/43000 U	7800 U	42000 U	41000 U	41 U	41 U
Acetone	88000	22000 U/25000 U	4500 U	25000 U	24000 U	8.9 J	24 U
Benzene	120	**24000/22000**	1200 U	6600 U	6400 U	6.4 U	6.4 U
Benzyl Chloride	20	49000 U/54000 U	9800 U	54000 U	52000 U	52 U	52 U
Bromodichloromethane	27	13000 U/14000 U	2500 U	14000 U	13000 U	13 U	13 U
Bromoform	900	19000 U/22000 U	3900 U	21000 U	21000 U	21 U	21 U
Bromomethane (Methyl Bromide)	75	7300 U/8100 U	1500 U	8000 U	7700 U	7.8 U	7.8 U
Carbon disulfide	10000	29000 U/33000 U	5900 U	32000 U	31000 U	31 U	31 U
Carbon tetrachloride	42	12000 U/13000 U	2400 U	13000 U	13000 U	13 U	13 U
Chlorobenzene	1000	8600 U/9600 U	1700 U	9500 U	9200 U	9.2 U	9.2 U
Chloroethane	150000	9900 U/11000 U	2000 U	11000 U	10000 U	10 U	10 U
Chloroform (Trichloromethane)	410	**11000/11000**	1800 U	10000 U	9700 U	9.8 U	9.8 U
Chloromethane (Methyl Chloride)	1300	**7700 U/3100 J**	1600 U	8500 U	8200 U	8.2 U	8.2 U
cis-1,2-Dichloroethene	510	**4100000/3800000**	1500 U	**78000**	**30000**	3.2 J	7.9 U
cis-1,3-Dichloropropene	NA	8500 U/9500 U	1700 U	9400 U	9000 U	9.1 U	9.1 U
Dibromochloromethane	41	16000 U/18000 U	3200 U	18000 U	17000 U	17 U	17 U
Dichlorodifluoromethane (CFC-12)	740000	9300 U/10000 U	1900 U	10000 U	9800 U	2.5 J	9.9 U
Ethylbenzene	3200	**23000/29000**	1600 U	9000 U	8600 U	8.7 U	8.7 U
Hexachlorobutadiene	45	40000 U/45000 U	8100 U	44000 U	42000 U	43 U	43 U
m&p-Xylene [4]	66000	**78000 /110000**	1600 U	9000 U	8700 U	8.7 U	8.7 U
Methylene chloride	2100	**20000/20000**	2100 U	11000 U	11000 U	11 U	11 U
o-Xylene [4]	66000	21000/37000	1600 U	9000 U	8700 U	8.7 U	8.7 U
Styrene	1700	8000 U/8900 U	1600 U	8800 U	8500 U	8.5 U	8.5 U
Tetrachloroethene	1700	13000 U/14000 U	2600 U	14000 U	13000 U	14 U	14 U
Toluene	6000	**78000/46000**	1400 U	7800 U	7500 U	7.9	7.5 U
trans-1,2-Dichloroethene	1000	**15000/15000**	1500 U	8200 U	7900 U	7.9 U	7.9 U
trans-1,3-Dichloropropene	NA	8500 U/9500 U	1700 U	9400 U	9000 U	9.1 U	9.1 U
Trichloroethene	580	**14000000/16000000**	**280000**	**1100000**	**1400000**	34	3.7 J
Trichlorofluoromethane (CFC-11)	840000	11000 U/12000 U	2100 U	12000 U	11000 U	11 U	11 U
Trifluorotrichloroethane (Freon 113)	1100000	14000 U/16000 U	2900 U	16000 U	15000 U	15 U	15 U
Vinyl acetate	3000	33000 U/37000 U	6700 U	36000 U	35000 U	35 U	35 U
Vinyl chloride	230	**4800 U/30000**	970 U	5300 U	5100 U	5.1 U	5.1 U
Xylene (total)	66000	**99000/150000**	1600 U	9000 U	8700 U	8.7 U	8.7 U

Notes:
All results and criteria reported in units of $\mu g/m^3$.
U = Not present at or above the associated value
J = Estimated concentration
NA = Not Available
Bold = Detected value exceeds soil gas criteria

(1) The applied soil gas criteria is the Industrial and Commercial II, III, and IV Acceptable Indoor Air Concentration (AIAC) (MDEQ, 2003), multiplied by the generic soil gas attenuation factor value of 10.
(2) Soil gas screening sample collected using temporary soil vapor probe.
(3) Soil gas criteria for ethylbenzene is applied as a surrogate value, due to the lack of criteria for 4-ethyl toluene.
(4) Soil gas criteria for xylene (total) is applied, due to the lack of criteria for specific xylene isomers.

TABLE E.1.2

FIELD PARAMETERS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Well Code	*Sampling Date*	*Sampling Time*	*Field pH*	*Groundwater Temperature (degrees Celcius)*	*Conductivity (umhos)*	*Groundwater Turbidity (NTU)*	*Dissolved Oxygen (%)*
IW-20	6/16/2005	12:00	6.70	16.44	4.50	3.83	0.19
MW19-10	6/16/2005	12:05	6.85	15.88	9.37	1.05	0.20
MW19-09	6/16/2005	15:15	6.69	17.52	4.62	1.39	0.16
MW19-09	6/16/2005	15:20	6.69	17.52	4.62	1.39	0.16
MW19-25	6/16/2005	15:00	7.11	16.30	5.35	3.83	0.84
		Average:	6.81	16.73	5.69	2.30	0.31

TABLE E.1.3

GROUNDWATER ELEVATION DATA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Well Code	*Sampling Date*	*Reference Elevation (top of casing) (ft amsl)*	*Ground Surface Elevation (ft amsl)*	*Groundwater Elevation (ft amsl)*	*Depth to Water (ft btoc)*	*Depth to Water (ft bgs)*
MW19-10	6/17/2005	718.13	718.45	707.17	10.96	11.28
MW19-09	6/17/2005	718.24	718.44	706.71	11.53	11.73
MW19-25	6/17/2005	718.27	718.47	706.97	11.30	11.50
IW-20	6/17/2005	717.72	717.99	706.88	10.84	11.11
IW-36	6/17/2005	716.51	716.79	706.52	9.99	10.27
IW-9	6/17/2005	716.45	716.84	706.59	9.86	10.25
IW-33	6/17/2005	717.82	717.95	706.77	11.05	11.18
IW-12	6/17/2005	717.28	717.93	706.79	10.49	11.14
				Average:	**10.75**	**11.06**

Notes:
ft = feet
amsl = above mean sea level
btoc = below top of casing
bgs = below ground surface

TABLE E.1.4

SUMMARY OF SOIL PHYSICAL PROPERTIES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Vapor Probe (Soil Sample No.) and Soil Type [1]	*Soil Sample Depth (ft BGS)*	*Date Sampled*	*Grain Size Analyses Results*					*Coarse (%)*	*Fine (%)*	*Soil Sample Description* [1]	*Saturated Hydraulic Conductivity* [4] *(cm/s)*	*Saturated Hydraulic Conductivity* [5] *(cm/s)*
			Gravel (%)	*Sand (%)*	*Silt and Clay (%)*	d_{10} [2] *(mm)*	d_{50} [3] *(mm)*					
GP19-01D SM-Silty Sands	0.0 - 10.0	25-May-05	12.5	75.5	12.0	--	0.24	88	12	Silty sands, trace fine gravels	--	1.51E-02
GP19-02D SM-Silty Sands	0.0 - 10.0	27-May-05	2	72.1	26.2	--	0.1	74	26	Silty sands, trace fine gravels	--	3.55E-03
GP19-03D SM-Silty Sands	0.0 - 10.0	27-May-05	0	91.8	8.2	0.078	--	92	8	Silty sands, trace fine gravels	6.08E-03	--
MW19-25 SM-Silty Sands	0.0 - 10.0	27-May-05	3	88.9	8.1	0.093	--	92	8	Silty sands, trace fine gravels	8.65E-03	--

Geometric Mean Hydraulic Conductivity (cm/s) (SM-Silty Sands - All locations): 7.29E-03

Vapor Probe (Soil Sample No.) and Soil Type [1]	*Soil Sample Depth (ft BGS)*	*Date Sampled*	*Fraction of Organic Carbon Content*	*Moisture Content (%)*	*Dry Bulk Density*	
					(lbs/ft^3)	*(g/cm^3)*
GP19-01D SM-Silty Sands	0.0 - 10.0	25-May-05	0.013	7.9	93	1.490
GP19-02D SM-Silty Sands	0.0 - 10.0	27-May-05	0.009	10.0	109.2	1.749
GP19-03D SM-Silty Sands	0.0 - 10.0	27-May-05	0.016	4.9	104.6	1.676
MW19-25 SM-Silty Sands	0.0 - 10.0	27-May-05	0.002	4.2	123.6	1.980
Average (SM-Silty Sands - All locations):			**0.010**	**6.8**	**107.6**	**1.724**

Notes:

(1) As indicated on stratigraphic logs presented in Attachment A.

(2) Values reported where grain size curve reaches d_{10}.

(3) Values reported where grain size curve does not reach d_{10}.

(4) Where d_{10} values were available, saturated hydraulic conductivity was estimated using the d_{10} value determined from the grain size analyses and the Hazen hydraulic conductivity estimate of K (cm/s) $=d_{10}^2$, where d_{10} is in mm.

(5) Where d_{10} values were not available, hydraulic conductivity was estimated using d_{50} and the relationship developed by Shepherd (1989) where hydraulic conductivity is related to grain size by $K=Cd_{50}^j$, where C is a shape factor, d_{50} is the mean grain size (mm), and j is an exponent; C and j values are 450 and 1.65, respectively, as presented on Figure 3.15 (Fetter, 2001) for channel deposits.

TABLE E.1.5

DERIVATION OF SITE-SPECIFIC SOIL GAS CRITERIA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Compound of Potential Concern (COPC)	*Chemical Properties (1)*						*Johnson & Ettinger Attenuation Factor, α (2)*	*MDEQ Industrial and Commercial II, III, and IV AIAC ($\mu g/m^3$) (3)*	*Site-Specific Soil Gas Criteria C_{sg} ($\mu g/m^3$) (4)*	*Maximum Detected Soil Gas Concentration ($\mu g/m^3$) (5)*
	Henry's Law Constant, H_L (atm m^3/mol)		*Water Diffusion Coefficient, D_{H2O} (cm^2/s)*		*Air Diffusion Coefficient, D_{air} (cm^2/s)*					
1,1,2-Trichloroethane	5.75E-04	(16.7°C)	8.80E-06	(25°C)	7.48E-02	(16.7°C)	5.920E-05	6.2	104,729	12,000
1,1-Dichloroethene	1.92E-02	(16.7°C)	1.04E-05	(25°C)	8.63E-02	(16.7°C)	6.411E-05	2	31,197	26,000
Benzene	3.75E-03	(16.7°C)	9.80E-06	(25°C)	8.43E-02	(16.7°C)	6.333E-05	12	189,481	24,000
Chloroform (Trichloromethane)	2.55E-03	(16.7°C)	1.00E-05	(25°C)	9.97E-02	(16.7°C)	6.922E-05	41	592,331	11,000
Chloromethane (Methyl Chloride)	7.02E-03	(16.7°C)	6.50E-06	(25°C)	1.21E-01	(16.7°C)	7.599E-05	130	1,710,804	3,100
cis-1,2-Dichloroethene	2.81E-03	(16.7°C)	1.13E-05	(25°C)	7.05E-02	(16.7°C)	5.716E-05	51	892,219	4,100,000
Ethylbenzene	4.83E-03	(16.7°C)	7.80E-06	(25°C)	7.19E-02	(16.7°C)	5.779E-05	320	5,537,057	29,000
Methylene chloride	1.56E-03	(16.7°C)	1.17E-05	(25°C)	9.68E-02	(16.7°C)	6.820E-05	210	3,079,334	20,000
Tetrachloroethene	1.16E-02	(16.7°C)	8.20E-06	(25°C)	6.90E-02	(16.7°C)	5.640E-05	170	3,014,304	2,200
Toluene	4.27E-03	(16.7°C)	8.60E-06	(25°C)	8.34E-02	(16.7°C)	6.293E-05	600	9,534,567	78,000
trans-1,2-Dichloroethene	6.65E-03	(16.7°C)	1.19E-05	(25°C)	6.78E-02	(16.7°C)	5.579E-05	100	1,792,559	15,000
Trichloroethene	6.82E-03	(16.7°C)	9.10E-06	(25°C)	7.57E-02	(16.7°C)	5.958E-05	58	973,551	16,000,000
Vinyl Chloride	2.12E-02	(16.7°C)	1.23E-05	(25°C)	1.02E-01	(16.7°C)	6.988E-05	23	329,135	30,000
Xylene (total) (6)	3.14E-03	(16.7°C)	1.00E-05	(25°C)	8.34E-02	(16.7°C)	6.293E-05	6,600	104,872,140	150,000

TABLE E.1.5

DERIVATION OF SITE-SPECIFIC SOIL GAS CRITERIA
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Notes:

Maximum detected soil gas concentration exceeds Site-specific soil gas criteria

(1) The applied chemical properties were obtained from the chemical properties database implemented in USEPA (2004). The Henry's Law constant and air diffusion coefficient were corrected for an average vadose zone temperature of 16.7°C. The reference temperature for the water diffusion coefficient is 25°C and, considering its low value, a correction to 16.7°C was considered negligible.

(2) The soil gas attenuation factor α is based on the solution for soil gas migration to building indoor air presented in Johnson and Ettinger [1991; Equation (21)], the vadose zone and building properties listed below, and a 4 Pa pressure difference between the vadose zone and the building (ΔP) as applied by Johnson and Ettinger (1991). The calculation of the soil gas attenuation factor was conducted using the Excel spreadsheet "SG-ADV-Feb04.xls" developed by USEPA (2004) and the following Site-specific vadose zone and building properties.

Vadose Zone Soil Properties:

Moisture Content, θ_m (%)	6.8	Average moisture content measured in SM-Silty Sand soil samples from all locations (see Table 4).
Total Porosity, ε_T (%)	27	Average porosity value for a sand soil after Fetter (2001; Table 3.4).
Moisture-Filled Porosity, ε_m	0.12	Moisture-filled porosity, $\varepsilon_m = \theta_m / 100 * (\rho_{db}/\rho_w)$, where water density, ρ_w=998.774 kg/m^3 at 17°C.
Vapor-Filled Porosity, ε_v	0.15	Vapor-filled porosity, $\varepsilon_v = \varepsilon_T / 100 - \varepsilon_m$
Dry Bulk Soil Density, ρ_{db} (g/cm^3)	1.724	Average of dry bulk density values measured in SM-Silty Sand soil samples from all locations (see Table 4).
Hydraulic Conductivity, K (cm/s)	7.29E-03	Geometric mean of hydraulic conductivity values determined from grain size analyses conducted on SM-Silty Sand soil samples (see Table 4).
Intrinsic Permeability, k_i (cm²)	8.05E-08	Intrinsic permeability, $k_i = K \mu_w / \rho_w g$, where water density, ρ_w=998.774 kg/m^3 at 17°C, gravitational acceleration g=9.81 m/s^2, and the dynamic viscosity of water, μ_w=1.08e-3 kg/ms at 17°C (Fetter, 2001).
Relative Vapor Permeability, k_r (cm²)	0.785	Estimated after Parker et al. (1987) for a loamy sand soil as implemented in USEPA (2004) to account for reduction in permeability due to degree of vadose zone water saturation.
Effective Vapor Permeability, k_v (cm²)	6.32E-08	Determined from $k_v = k_r * k_i$.
Vadose Zone Temperature (°C)	16.7	Average measured groundwater temperature across Site during groundwater sampling events during June, 2005 (see Table 2).
Distance from Source to Building, L_T (m)	1.526	Determined from the average depth below grade of the vapor probe screened interval mid-points, less a 0.15 metre floor slab thickness.
Vapor Viscosity of Air, μ_a at 16.7°C (g/cm s)	1.77E-04	Vadose zone temperature corrected vapor viscosity as implemented in USEPA (2004).

Building Properties:

Below-Grade Area of Building Surfaces, A_B (m²)	2,508	Based on the 68.6 m by 36.6 m building occupying the Site, with slab-on-grade construction.
Building Volume, V_B (m^3)	13,762	Based on the 68.6 m by 36.6 m by 5.5 m building occupying the Site.
Building Air Exchange Rate, T_{air} (1/hr)	0.83	Industrial indoor air exchange rate after Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites, ASTM Designation: E1739-95 (ASTM, 1995).
Ratio of Crack Area to Below-Grade Area, η (%)	0.038	Default crack ratio value for slab-on-grade structures presented in USEPA (2002; Appendix G).
Foundation Thickness, L_{crack} (cm)	15	Based on a 15 cm (6 inch) floor slab thickness observed during vapor probe installation.

(3) Industrial and Commercial II, III, and IV Acceptable Indoor Air Concentrations (AIACs) presented in MDEQ (2003).

(4) The Site-specific soil gas criteria is calculated from $C_{sg} = AIAC / \alpha$.

(5) Soil gas concentrations are the highest detected concentration of each COPC, as presented in Table 1.

(6) Xylenes are dealt with as xylenes (total), as opposed to jointly modeling xylenes (total) and m&p-xylenes separately. For xylenes (total), the chemical properties of o-xylene are reported and were used in the modeling procedure for conservatism, as this produced the lowest possible soil gas criteria.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-01D
DATE COMPLETED: May 25, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CONCRETE, with fine subrounded gravels, white, competent	0.50	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, brown, moist		BENTONITE GROUT	1DP				2.0
4	- fine grained, light brown at 1.8ft BGS		0.75" PVC WELL CASING					
6			BENTONITE CHIPS	2DP				0.3
8	- trace clays, orange-brown at 8.3ft BGS		2" PVC WELL SCREEN	3DP				2.4
10			SAND PACK					
12	SP-SANDS, trace silts, compact, fine to medium grained, poorly graded, brown-gray, very moist	11.50	3-1/2" BOREHOLE	4DP				666
14	- gray, saturated at 12.0ft BGS			5DP				112
16	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	14.50	NATURAL COLLAPSE AND BENTONITE CHIPS	6DP				29.0
18								
20	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	19.25		7DP				10.9
22	END OF BOREHOLE @ 20.0ft BGS	20.00						
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 7/18/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-02D
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CONCRETE, with fine subrounded gravels, white, competent	0.50	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine to coarse grained, poorly graded, brown, moist		0.75" PVC WELL CASING	1DP				4.1
			BENTONITE GROUT					
4	- orange-brown at 3.8ft BGS		BENTONITE CHIPS	2DP				4.3
	- tan/beige at 5.0ft BGS		SAND PACK					
6			2" PVC WELL SCREEN					
	- brown and orange-brown at 7.5ft BGS			3DP				3.8
8								
10				4DP				39.7
	- brown-gray, very moist at 11.5ft BGS							
12	- saturated at 11.8ft BGS		3-1/2" BOREHOLE					
	CL-SILTY CLAYS, firm, low plasticity, gray, moist	13.25		5DP				371
14	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	14.00						
16			NATURAL COLLAPSE AND BENTONITE CHIPS	6DP				632
18								
	- fine to coarse grained at 18.9ft BGS	19.00		7DP				824
	CL-SILTY CLAYS, firm, low plasticity, gray, moist	20.00						
20	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 7/18/05

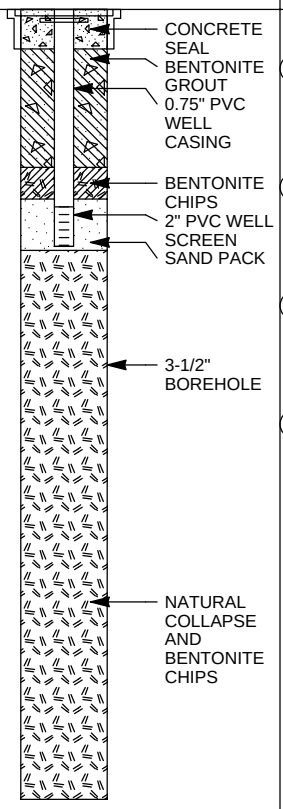
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-03D
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	CONCRETE, with fine subrounded gravels, white, competent	0.50
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium grained, poorly graded, brown, moist	2.50
4	PAINT SLUDGE, trace paper debris, clay to fine gravel size, compact, yellow-green, moist, strong paint-like odor	
6		
8	SM-SILTY SANDS, compact, fine grained, trace medium grained, poorly graded, brown, moist, slight paint-like odor	7.50
10		
12	- brown-gray, saturated, slight paint-like odor at 11.5ft BGS - dark gray to black at 12.3ft BGS - gray at 12.5ft BGS	
14		
16		
18	CL-SILTY CLAYS, trace fine sands, firm, low plasticity, gray, moist	17.50
20	END OF BOREHOLE @ 20.0ft BGS	20.00
22		
24		
26		
28		
30		
32		
34		

MONITORING WELL



WELL DETAILS
Screened interval:
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1DP				1340
2DP				+9999
3DP				+9999
4DP				2495
5DP				369
6DP				125
7DP				9.4

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (1DP)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 7/18/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GP19-04D
DATE COMPLETED: May 25, 2005
DRILLING METHOD: DIRECT PUSH
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CONCRETE, with fine subrounded gravels, white, competent	0.50	CONCRETE SEAL 3-1/2" BOREHOLE BENTONITE GROUT 0.75" PVC WELL CASING BENTONITE CHIPS 2" PVC WELL SCREEN SAND PACK	1DP				18.4
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, orange-brown, moist							
4	- brown at 2.5ft BGS - light brown at 3.5ft BGS			2DP				8.3
6	END OF BOREHOLE @ 6.1ft BGS	6.10						
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
5.00 to 6.00ft BGS
Length: 1ft
Diameter: 0.7in
Slot Size: .25" DIAM.
Material: PVC
Sand Pack:
4.80 to 6.10ft BGS
Material: WASHED GRAVEL

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 7/18/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: MW19-25
DATE COMPLETED: May 27, 2005
DRILLING METHOD: DIRECT PUSH/HSA
FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	CONCRETE, with fine subrounded gravels, white, competent	0.50	CONCRETE SEAL					
2	SM-SILTY SANDS, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, orange-brown, moist			1DP				18.4
4	- brown at 2.5ft BGS - light brown at 3.5ft BGS		8-1/4" BOREHOLE 2" PVC WELL CASING	2DP				8.3
6			BENTONITE CHIPS					
8	- trace to with clays at 7.5ft BGS - no clays at 8.0ft BGS			3DP				28.4
10	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist	9.50		4DP				112
12	- brown-gray, saturated at 11.5ft BGS		SAND PACK					
14	SM-SILTY SANDS, compact, fine grained, poorly graded, gray, saturated	13.50	2" PVC WELL SCREEN	5DP				50.0
16				6DP				3.4
18								
20	CL-SILTY CLAYS, firm, low plasticity, gray, moist	18.75		7DP				2.1
	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 17303.GPJ CRA_CORP.GDT 7/18/05

APPENDIX E.2

INDOOR AIR SAMPLING EVENT
HAULAWAY BUILDING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

1.0 INTRODUCTION

This Appendix summarizes the indoor air sampling event and subsequent evaluation of results that was completed in 2006 to evaluate potential exposure scenarios due to historical impacts at the Company Vehicle Operations (CVO) Area (Site) located in Ypsilanti, Michigan. The shallow groundwater at the Site has been impacted with chlorinated and non-chlorinated volatile organic compounds (VOCs). Groundwater sample results suggest the possibility that VOCs could volatilize from groundwater to soil gas and subsequently migrate into the indoor air of the Haulaway Building.

2.0 BACKGROUND

This summary presents and discusses the results of the indoor air sampling event conducted by CRA in July 2006. The purpose of the indoor air-sampling event was to determine whether the VOCs, trichloroethylene (TCE), cis-1,2-dichlorothene (cis-1,2-DCE), and vinyl chloride, are present in indoor air of the Haulaway Building at concentrations above acceptable levels for a commercial/industrial exposure scenario. The presence of TCE, cis-1,2-DCE, and vinyl chloride previously were identified in soil and groundwater beneath a portion of the Haulaway Building. In 2005, CRA conducted a vapor intrusion study for the Site that consisted of soil gas sampling beneath the Company Vehicle Operations Area of the Haulaway Building. The data was used to develop Site-specific soil gas criteria protective of the soil gas to indoor air inhalation exposure pathway. The results of the vapor intrusion study indicated that TCE and cis-1,2-DCE were present in soil gas samples collected near the Haulaway Building at concentrations above the Site-specific soil gas criteria.

The Site-specific soil gas criteria were developed following United States Environmental Protection Agency's (USEPA's) *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)*, November 2002. The Site-specific soil gas criteria were based on a conservative set of assumptions and were developed using the Johnson and Ettinger (1991) Vapor Intrusion

Model, as implemented by USEPA (2004). This conservative modeling approach may have overestimated the potential for soil gas to migrate into indoor air. The purpose of the indoor air sampling event was to further evaluate whether TCE and cis-1,2 –DCE, as well as vinyl chloride, could be present at concentrations in indoor air that pose potential health risks under a commercial/industrial inhalation exposure scenario. The indoor air sampling was conducted based on the methodology presented in Site Specific Indoor Air Sampling Protocol Memorandum (CRA, June 12, 2006) and guidance on indoor air sampling and analysis presented in the Michigan Department of Environmental Quality (MDEQ) "Operational Memorandum No. 4 – Attachment 4 - Soil Gas and Indoor Air, Peer Review Draft, February, 2006".

Section 3.0 summarizes the indoor air sampling methodology, and Section 4.0 presents the indoor air assessment criteria applied to evaluate the indoor air sampling analytical results. Section 5.0 presents an assessment of the indoor air sample analytical results, and Section 6.0 presents conclusions and recommendations stemming from this indoor air-sampling event.

3.0 INDOOR AIR SAMPLING METHODOLOGY

Indoor air samples were collected from within the garage area of the Haulaway Building consistent with the methodology presented in MDEQ's Operational Memorandum No. 4 – Attachment 4 and Site-specific protocol (CRA, June 12, 2006). As required by MDEQ's Operational Memorandum No. 4 – Attachment 4, "shut-in", or sealed, conditions were created within the building by closing all windows, doors and shutting down the HVAC for at least 48 hours prior to the collection of indoor air samples. The building was sealed and the sampling area prepared on Friday July 2, 2006, five days in advance of sampling. The sampling area was partially separated from the remainder of the garage with a tarp to reduce air movement within the garage. Potential sources of volatile organic compounds were removed and placed approximately 30 feet away from the opposite side of the tarp. Unmovable sources of VOCs were covered in plastic sheeting and sealed with duct tape. After sealing or relocating potential sources of VOCs, the garage doors were kept open for 3 hours to allow any vapors released from the duct tape and plastic to disperse and escape. The garage doors were sealed at approximately 6:30 PM on Friday July 2, 2006 and the building remained sealed until July 6, 2006 when sampling was completed.

Indoor air samples were collected over a 24-hour period between July 5 and 6, 2006. The weather on the sampling day was sunny with a temperature in the low 70's (F) and an approximate wind speed of 10 to 15 miles per hour from the northwest. Seven indoor

air samples (including one duplicate) were collected from different locations within the garage/service bay area of the Haulaway Building. As required by MDEQ's Operational Memorandum No. 4 – Attachment 4, two ambient air samples were collected just outside the building and the receiving laboratory prepared a trip blank. The sampling locations are identified in Figure E-2. The indoor air samples were collected into laboratory certified clean 6-liter Summa canisters placed on chairs at heights from 2.17 to 4.67 feet above the garage area floor. One sample (IA-006) was collected at a height of 4.75 feet above a mechanics trench (see Figure E-2). The indoor air samples were submitted to Severn Laboratories, Inc. (STL) of North Canton, Ohio under chain-of-custody protocols. The indoor air samples were analyzed for TCE, cis-1,2-DCE, and vinyl chloride using USEPA Method TO-15.

4.0 INDOOR AIR ASSESSMENT CRITERIA

The indoor air sample analytical results were assessed in 2006 against the following then current criteria.

- MDEQ's Part 201/213 Industrial/Commercial II, III and IV Acceptable Indoor Air Concentrations (AIACs) as set out in MDEQ's Operational Memorandum No. 4 – Attachment 4 – Appendix D.
- Site-specific risk based target indoor air concentrations presented in Table E.2.1.

The development of the Site-specific risk based target indoor air concentrations is based on the exposure assumptions applied by the MDEQ in the development of generic groundwater and soil volatilization to indoor air inhalation criteria for a commercial/industrial exposure scenario. Consistent with the MDEQ Industrial and Commercial II, III, and IV AIACs, the Site-specific target indoor air concentrations were based on a target risk level of 1×10^{-5} for carcinogenic compounds and target hazard quotient of 1.0 for non-carcinogenic compounds.

For TCE, due to uncertainty related to its toxicity, target indoor air concentrations were calculated based on two toxicity parameter values. The TCE toxicity values applied were the withdrawn inhalation cancer slope factor (CSF_i) previously posted on USEPA's Integrated Risk Information System (IRIS) database and the CSF_i reported by the California Environmental Protection Agency (Cal EPA). USEPA withdrew the previous TCE CSF_i pending a full review of all available toxicity studies. The review was completed and draft provisional toxicity values were developed for TCE presented in USEPA (2001). Within the toxicology community, both at the practitioner and

regulatory levels, however, there are differing opinions as to the use of toxicity parameter values presented in USEPA (2001). As a result, given this uncertainty, both the withdrawn and Cal EPA toxicity values for TCE were used in the development of the Site-specific risk based target indoor air concentrations for TCE presented in Table E.2.1.

5.0 INDOOR AIR SAMPLE ANALYTICAL RESULTS

Table E.2.2 summarizes the analytical results for the indoor air and ambient air samples. As presented in Table E.2.2, cis-1,2-DCE and TCE were detected at all indoor air sample locations (IA-001 to IA-006). Both compounds were reported as non-detect at the reporting detection limit (RDL). The RDL was lower than the AIAC and the Site-specific risk based target indoor air concentrations in the ambient air samples (IA-007 and IA-008) and the trip blank. Vinyl chloride, a degradation product of TCE and cis-1,2-DCE, was reported as non-detect in all the samples at a RDL less than the AIAC of 28 micrograms per cubic meter ($\mu g/m^3$) and the Site-specific risk based target indoor air concentration of 23 $\mu g/m^3$. The detected concentrations of cis-1,2-DCE are less than the AIAC of 51 $\mu g/m^3$ and the Site-specific risk based target indoor air concentration of 52 $\mu g/m^3$. The detected concentrations of TCE are above the AIAC of 58 $\mu g/m^3$ and the Site-specific target indoor air concentrations of 58/50 $\mu g/m^3$ (based on the withdrawn CSF_i/Cal EPA CSF_i values for TCE).

The indoor air TCE concentrations ranged from 77 $\mu g/m^3$ for sample location IA-004 collected south of the mechanics trench to 290 $\mu g/m^3$ (280 $\mu g/m^3$ duplicate) for sample location IA-001 collected in the car wash bay. The highest TCE concentrations were detected in the samples collected in the east and west portion of the car wash bay directly above the areas were the highest subsurface impacts previously were detected. The detected concentrations are observed to decrease at sampling locations that are located away from the areas of the highest subsurface impacts.

The indoor air sample results indicate that, for the "shut-in" conditions under which the samples were collected, TCE is present in indoor air at concentrations that are above MDEQ's AIAC. The detected TCE concentrations theoretically could pose a potential risk for the commercial/industrial inhalation exposure scenario in the event that continuous exposure to the detected concentrations actually occurred throughout a workday. However, as described in Section 3.0, to adhere to MDEQ requirements, the "shut-in" conditions represent a worst case scenario with the building completely sealed for more than 48 hours and no air exchange provided by the HVAC system and exhaust fans. Under typical workday conditions, the garage doors are open for extended time

periods and air is circulated through the building by its HVAC system/exhaust fans. These conditions result in significant ventilation of the building and influx of outdoor air into the building such that TCE concentrations emitted from the subsurface to indoor air would be readily dispersed and diluted. As a result, to determine the concentration levels that workers are actually exposed to, additional indoor air sampling could be conducted under typical workday conditions to demonstrate that the building ventilation is protective of potential of inhalation exposure to VOCs entering the building from the subsurface.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for the indoor air samples collected under "shut-in" conditions (i.e., building sealed with no ventilation) indicate that TCE is present in indoor air at concentrations above the MDEQ's AIACs for commercial/industrial exposure setting. The highest TCE concentrations were reported for indoor air samples collected from within the car wash area that is above the subsurface impacts previously detected beneath the garage. The "shut-in" conditions under which the indoor air samples were collected represent a worst case scenario.

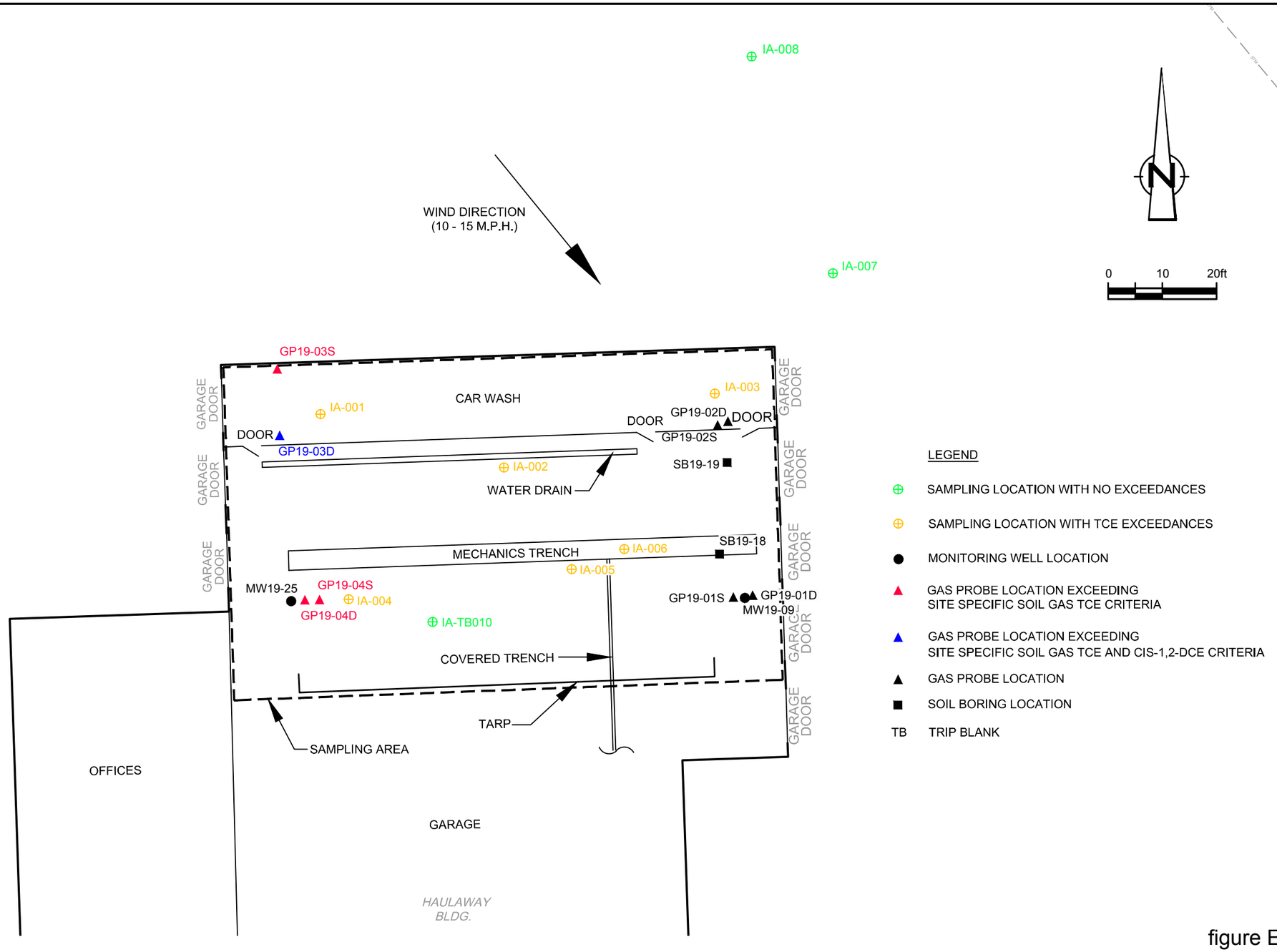


figure E.2

INDOOR AIR SAMPLING LOCATIONS - JULY 5, 2006
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

CRA

17303-T05(008)GN-WI049 MAY 20/2011

TABLE E.2.1

DERIVATION OF RISK-BASED TARGET INDOOR AIR CONCENTRATIONS FOR INDUSTRIAL/COMMERCIAL WORKER
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Chemical of Concern (COC)	*Inhalation Unit Risk Factor, URF* $(\mu g/m^3)^{-1}$	*Inhalation CSF (1)* *1/(mg/kg-d)*	*Sources of URF/CSF* *(2)*	*Inhalation RfC* (mg/m^3)	*Inhalation RfD (3)* *(mg/kg-d)*	*Sources of RfC/RfD* *(2)*	*Commercial/Industrial Worker* *RISK = 1.0E-05* *Adult* $(\mu g/m^3)$	*Commercial/Industrial Worker* *HI = 1.0* *Adult* $(\mu g/m^3)$	*Risk-Based Target Indoor Air Concentration (4)* $(\mu g/m^3)$
cis-1,2-Dichloroethene	--	--	--	--	1.00E-02	USEPAb	NV	5.21E+01	52
Trichloroethene (withdrawn CSF_i/URF)	1.70E-06	5.95E-03	USEPAa	--	--	--	5.84E+01	NV	58
Trichloroethene (Cal EPA CSF_i/URF)	2.00E-06	7.00E-03	USEPAb		1.70E-01	USEPAb	4.97E+01	8.86E+02	50
Vinyl chloride (adult)	4.40E-06	1.54E-02	USEPAa	1.00E-01	2.86E-02	USEPAa	2.26E+01	1.49E+02	23

Notes :

-- = Not Available
N/A = Not Applicable
NV = No Value
(1) Inhalation Cancer Slope Factor (CSF) = Unit Risk Factor x body weight/inhalation rate x conversion factor = URF x 70 kg/20 m^3/day x 1,000 µg/mg.
(2) USEPAa: Integrated Risk Information System Database, April 6, 2006.
USEPAb: Region 9 Preliminary Remediation Goals, October, 2004
(3) Inhalation Reference Dose (RfD) = Inhalation Reference Concentration (RfC) x Inhalation Rate/Body Weight = RfC x 20 m^3/day/ 70 kg.
(4) Risk-based target indoor air concentrations lower of the non-carcinogenic and carcinogenic value.

Commercial/Industrial Worker Exposure Assumptions

Risk-Based Indoor Air Concentration (µg/m	C_{air}	calculated	
Target Risk Level (unitless)	TR	1.00E-05	
Target Hazard Level (unitless)	THQ	1.00	
Cancer Slope Factor ((mg/kg-day)$^{-1}$)	CSF	chemical-specific	(see above)
Reference Dose Factor (mg/kg-day)	RfD	chemical-specific	(see above)
Conversion Factor (µg/mg)	CF	1000	
Exposure Frequency (days/year)	EF	245	MDEQ(1998)
Exposure Duration (years)	ED	21	MDEQ(1998)
Adjusted Inhalation Rate (unitless)	AIR	2	MDEQ(1998)
Body Weight (kg)	BW	70	MDEQ(1998)
Inhalation Rate (m^3/hour)	INR	20.0	MDEQ(1998)
Averaging Time - carc. (days)	ATc	25550	[(365 days for 70 years), MDEQ, 1998]
Averaging Time - noncarc. (days)	ATnc	7665	[(365 days times the ED), MDEQ,1998]

Exposure Equations

Carcinogenic Endpoints:

$$\text{Risk-Based } C_{air} = \frac{TR \times BW \times ATc \times AIR\ CF}{CSF \times INR \times EF \times ET \times ED}$$

Non-Carcinogenic Endpoints:

$$\text{Risk-Based } C_{air} = \frac{THQ \times RfD \times BW \times ATnc \times CF}{INR \times EF \times ET \times ED}$$

Exposure Assumptions Source:

MDEQ, 1998. Part 201 Generic Groundwater and Soil Volatilization to Indoor Air Inhalation Criteria: Technical Support Document, August, 1998.

TABLE E.2.2

JULY 5, 2006 INDOOR AIR SAMPLING ANALYTICAL RESULTS
SITE SUMMARY REPORT
COMPANY VEHICLE OPERATIONS AREA
YPSILANTI, MICHIGAN

			Volatile Organic Compound		
			cis-1,2-Dichloroethene ($\mu g/m^3$)	*Trichloroethene ($\mu g/m^3$)*	*Vinyl Chloride ($\mu g/m^3$)*
		Site-Specific Risk-Based Target Indoor Air Conc [(1)]:	52	58/50[(3)]	23
		MDEQ Industrial and Commercial Commercial II, III and IV AIAC [(2)]:	51	58	28
Sample ID	**Sample Location**	**Sample Height (ft)**			
G-17303-070506-MMD-001	IA-001	2.17	21	**290**	ND(0.51)
G-17303-070506-MMD-002	IA-002	3.33	17	**98**	ND(0.51)
G-17303-070506-MMD-003	IA-003	3.25	16	**200**	ND(0.51)
G-17303-070506-MMD-004	IA-004	3.42	11	**77**	ND(0.51)
G-17303-070506-MMD-005	IA-005	3.33	13	**86**	ND(0.51)
G-17303-070506-MMD-006	IA-006	4.75	14	**100**	ND(0.51)
G-17303-070506-MMD-007	IA-007	4.67	ND(0.79)	ND(1.1)	ND(0.51)
G-17303-070506-MMD-008	IA-008	4.67	ND(0.79)	ND(1.1)	ND(0.51)
G-17303-070506-MMD-009	IA-001 (Duplicate)	2.17	20	**280**	ND(0.51)
TB-17303-070506-MMD-010	IA-010	Trip Blank	ND(0.79)	ND(1.1)	ND(0.51)

Notes:

(1) Site-specific risk-based target indoor air concentrations presented in Table 1.

(2) Michigan Department of Environmental Quality Commercial and Industrial Acceptable Indoor Air Concentrations as set out in MDEQ's Operational Memorandum No. 4 – Attachment 4 – Appendix D.

(3) The Site-specific risk based target indoor air concentrations for TCE developed using the withdrawn CSFi/Cal EPA CSFi values for TCE.

Detected concentration above the AIAC and Site-specific target indoor air concentration.

APPENDIX F

ANALYTICAL DATA SUMMARY TABLES BY PAOC AND MATRIX

APPENDIX F

APPENDIX OF CONTENTS

APPENDIX F.1A PAOC 18 – SOIL ANALYTICAL RESULTS PRE 1997

APPENDIX F.1B PAOC 18 – SOIL ANALYTICAL RESULTS POST 1997

APPENDIX F.2A PAOC 23 – SOIL ANALYTICAL RESULTS

APPENDIX F.2B PAOC 23 - INDOOR AIR ANALYTICAL RESULTS

APPENDIX F.2C PAOC 23 - SOIL GAS ANALYTICAL RESULTS

APPENDIX F.3 PAOC 24 – SOIL ANALYTICAL RESULTS

APPENDIX F.4A PAOC 29 – SOIL ANALYTICAL RESULTS PRE 1997

APPENDIX F.4B PAOC 29 – SOIL ANALYTICAL RESULTS POST 1997

APPENDIX F.5A SITE WIDE SOIL ANALYTICAL RESULTS PRE 1997

APPENDIX F.5B SITE WIDE SOIL ANALYTICAL RESULTS POST 1997

APPENDIX F.6A PAOC 19 – GROUNDWATER ANALYTICAL RESULTS - VOCS

APPENDIX F.6B PAOC 19 – GROUNDWATER ANALYTICAL RESULTS - SVOCS

APPENDIX F.6C PAOC 19 – GROUNDWATER ANALYTICAL RESULTS - INORGANICS

APPENDIX F.6D PAOC 19 – GROUNDWATER ANALYTICAL RESULTS - PCBS

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface Water*	*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to*	*Particulate Soil*	*Protection Criteria*	*Interface Protection Criteria*	*Screening Levels*	*SB-18-20*	*SB-18-20*
Sample Depth:			*Source Thickness*	*Source Thickness*	*oil Inhalation Criteria (VSIC)*			*Indoor Air Inhalation Crite*	*Inhalation Criteria*				*0.5-2 ft BGS*	*0-0.5 ft BGS*
Sample ID:													*SB-18-20S1E2*	*SB-18-20S0E1*
Sample Date:													*12/01/1996*	*12/14/1996*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
VOCs														
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID	440	-	-
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8	460	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6	870	-	-
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6	920	-	-
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15	890	-	-
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	-	-
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830		830	-	-
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100	-	-
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57	110	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11	890	-	-
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28	210	-	-
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2	1200	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6	550	-	-
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1	94	-	-
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68	170	-	-
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18	620	-	-
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220		7300	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	-	-
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID	2500	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID	2700	-	-
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34	110000	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4	400	-	-
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360		760	-	-
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID	1500	-	-
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID	870	-	-
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7	2200	-	-
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID	280	-	-
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	-	-
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22	950	-	-
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	-	-
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID	1100	-	-
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000		220000	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID	610	-	-
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000		2000	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID	1000	-	-
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID	7400	-	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2	390	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140	5900	-	-
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30	2300	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID	10000	-	-
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface Water*	*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to*	*Particulate Soil*	*Protection Criteria*	*Interface Protection Criteria*	*Screening Levels*	*SB-18-20*	*SB-18-20*
Sample Depth:			*Source Thickness*	*Source Thickness*	*oil Inhalation Criteria (VSIC)*			*Indoor Air Inhalation Crite*	*Inhalation Criteria*				*0.5-2 ft BGS*	*0-0.5 ft BGS*
Sample ID:													*SB-18-20S1E2*	*SB-18-20S0E1*
Sample Date:													*12/01/1996*	*12/14/1996*
Sample Type:														
Parameter:	***Units***	***x***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***		
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1	520	-	-
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	-	-
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	-	-
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30	1400	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560		560	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7	550	-	-
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	-	-
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	-	-
TCLP VOCs														
1,1-Dichloroethene	mg/L	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	-	-
1,2-Dichloroethane	mg/L	-	74	33	21	420	0.1	11	150000	380	7.2	1200	-	-
1,4-Dichlorobenzene	mg/L	-	340	260	260	1900	1.7	100	570000	140	0.36	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	-	-
Benzene	mg/L	-	230	99	45	400	0.1	8.4	470000	220	4	400	-	-
Carbon tetrachloride	mg/L	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	-	-
Chlorobenzene	mg/L	-	2100	1100	920	260	2	220	2100000	260	0.5	260	-	-
Chloroform (Trichloromethane)	mg/L	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	-	-
Tetrachloroethene	mg/L	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	-	-
Trichloroethene	mg/L	-	1100	440	260	500	0.1	37	2300000	440	4	500	-	-
Vinyl chloride	mg/L	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	-	-
SVOCs														
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	39	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	-	-
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	-	-
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33	1800	-	-
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300		-	-	-
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36	19000	-	-
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	54[1]	-
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID	-	-	-
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190		-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	5.6	-
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	6.3	-
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID	1100	-	-
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41	-	29000000	41	ID	-	3.5 U	-
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	3.5	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface Water*	*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to*	*Particulate Soil*	*Protection Criteria*	*Interface Protection Criteria*	*Screening Levels*	*SB-18-20*	*SB-18-20*
Sample Depth:			*Source Thickness*	*Source Thickness*	*oil Inhalation Criteria (VSIC)*			*Indoor Air Inhalation Crite*	*Inhalation Criteria*				*0.5-2 ft BGS*	*0-0.5 ft BGS*
Sample ID:													*SB-18-20S1E2*	*SB-18-20S0E1*
Sample Date:													*12/01/1996*	*12/14/1996*
Sample Type:														
Parameter:	***Units***	***x***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***		
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	3.5 U	-
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	3.5 U	-
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	3.5 U	-
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	3.5 U	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1	2200	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL	10000	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120	310	-	-
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000	-		-	-	-
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-	-	-
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	3.5 U	-
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	3.5 U	-
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7	-	-	-
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2	740	-	-
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790		790	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID	140000	-	-
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730	-	4100000	730	5.5	-	3.5 U	-
Fluorene	mg/kg	-	150000	150000	150000	87000	890	-	4100000	890	5.3	-	6[1]	-
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	-	-
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091	350	-	-
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID	720	-	-
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	3.5 U	-
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	62[1]	-
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6	490	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2		1500	-	-
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700		-	-	-
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	-	-
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	6.7[1]	-
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	-	-
Pyrene	mg/kg	-	780000	780000	780000	84000	480	-	2900000	480	ID	-	4.2	-
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-	-
TCLP SVOCs														
1,4-Dichlorobenzene	mg/L	-	340	260	260	1900	1.7	100	570000	140	0.36	-	-	-
2,4,5-Trichlorophenol	mg/L	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	-	-
2,4,6-Trichlorophenol	mg/L	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	-	-
2,4-Dinitrotoluene	mg/L	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	-	-
2-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
3&4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
Hexachlorobenzene	mg/L	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	-	-
Hexachlorobutadiene	mg/L	-	460	460	460	350	72	350	180000	350	0.091	350	-	-
Hexachloroethane	mg/L	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	-	-
Nitrobenzene	mg/L	-	64	64	64	340	0.33	170	21000	220	3.6	490	-	-
Pentachlorophenol	mg/L	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	-	-
Pyridine	mg/L	-	97	40	9.8	37	0.42	2	100000	37		37	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface Water*	*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to*	*Particulate Soil*	*Protection Criteria*	*Interface Protection Criteria*	*Screening Levels*	*SB-18-20*	*SB-18-20*
Sample Depth:			*Source Thickness*	*Source Thickness*	*oil Inhalation Criteria (VSIC)*			*Indoor Air Inhalation Crite*	*Inhalation Criteria*				*0-0.5 ft BGS*	*0-0.5 ft BGS*
Sample ID:													*SB-18-20S1E2*	*SB-18-20S0E1*
Sample Date:													*12/01/1996*	*12/14/1996*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Inorganics														
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID	-		-	-	-
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-	-	-
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-	-	-
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000	-	1250	-	-	-
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590	-	948	-	-	-
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-	-	-
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-	-	-
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000	-	167	-	-	-
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID	-		-	-	-
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	220
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Magnesium	mg/kg	-	NLV	NLV	NLV	-	22000	NLV	2900000	-		-	-	-
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-	-	-
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05	-	-	-
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000	-	166	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-	-	-
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-	-	-
Sodium	mg/kg	-	NLV	NLV	NLV	-	7000	NLV	ID	-		-	-	-
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-	-	-
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID	-	190	-	-	-
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID	-	377	-	-	-
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	-	-
TCLP Metals														
Arsenic	mg/L					37	4.6		910	2000	4.6		-	-
Barium	mg/L					130000	1300		150000	1000000	1250		-	-
Cadmium	mg/L					2100	6		2200	230000	7.32		-	-
Chromium	mg/L					9200	30		240	140000	3.3		-	-
Copper	mg/L					73000	5800		59000	1000000	167		-	-
Lead	mg/L					900	700		44000		7740		-	-
Mercury	mg/L		62	62	62	580	1.7	89	8800	47	0.05		-	-
Selenium	mg/L					9600	4		59000	78000	0.4		-	-
Silver	mg/L					9000	13		2900	200000	0.1		-	-
Zinc	mg/L					630000	5000			1000000	377		-	-
PCBs														
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Petroleum Hydrocarbons														
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface Water*	*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to*	*Particulate Soil*	*Protection Criteria*	*Interface Protection Criteria*	*Screening Levels*	*SB-18-20*	*SB-18-20*
Sample Depth:			*Source Thickness*	*Source Thickness*	*oil Inhalation Criteria (VSIC)*			*Indoor Air Inhalation Crite*	*Inhalation Criteria*				*0.5-2 ft BGS*	*0-0.5 ft BGS*
Sample ID:													*SB-18-20S1E2*	*SB-18-20S0E1*
Sample Date:													*12/01/1996*	*12/14/1996*
Sample Type:														
Parameter:	***Units***	***x***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***		
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech														
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc														
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-20***	***SB-18-20***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***
Sample Depth:		***0.5-2 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***
Sample ID:		***SB-18-20S1E2***	***SB-18-20S2E4***	***SB-18-21S0E1***	***SB-18-21S1E2***	***SB-18-21S2E4***	***SB-18-21S4E6***	***SB-18-21S6E8***	***SB-18-21S8E10***	***SB-18-21AS0E1***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS0E1***	***SB-18-21AS1E2***	***SB-18-21AS2E4***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS8E10***	***SB-18-22S2E4***	***SB-18-22S0E1***	***SB-18-22S1E2***	***SB-18-22S2E4***	***SB-18-22S4E6***
Sample Date:		***12/14/1996***	***12/14/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/01/1996***	***12/01/1996***	***12/01/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/01/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***
Sample Type:																							
Parameter:	***Units***																						
VOCs																							
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-20***	***SB-18-20***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***
Sample Depth:		***0.5-2 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***
Sample ID:		***SB-18-20S1E2***	***SB-18-20S2E4***	***SB-18-21S0E1***	***SB-18-21S1E2***	***SB-18-21S2E4***	***SB-18-21S4E6***	***SB-18-21S6E8***	***SB-18-21S8E10***	***SB-18-21AS0E1***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS0E1***	***SB-18-21AS1E2***	***SB-18-21AS2E4***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS8E10***	***SB-18-22S2E4***	***SB-18-22S0E1***	***SB-18-22S1E2***	***SB-18-22S2E4***	***SB-18-22S4E6***
Sample Date:		***12/14/1996***	***12/14/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/01/1996***	***12/01/1996***	***12/01/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/01/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	3.7	0.33 U	-	-	-	-	-	-	0.46	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	5.3[1]	0.33 U	-	-	-	-	-	-	0.43	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	0.71	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	1.7 U	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	0.97	1.7 U	0.33 U	-	-	-	-	-	-	0.63	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-20***	***SB-18-20***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***
Sample Depth:		***0.5-2 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***
Sample ID:		***SB-18-20S1E2***	***SB-18-20S2E4***	***SB-18-21S0E1***	***SB-18-21S1E2***	***SB-18-21S2E4***	***SB-18-21S4E6***	***SB-18-21S6E8***	***SB-18-21S8E10***	***SB-18-21AS0E1***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS0E1***	***SB-18-21AS1E2***	***SB-18-21AS2E4***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS8E10***	***SB-18-22S2E4***	***SB-18-22S0E1***	***SB-18-22S1E2***	***SB-18-22S2E4***	***SB-18-22S4E6***
Sample Date:		***12/14/1996***	***12/14/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/01/1996***	***12/01/1996***	***12/01/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/01/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	0.89	1.7 U	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	1.6	1.7 U	0.33 U	-	-	-	-	-	-	0.59	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	0.78	1.7 U	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	1.7 U	0.33 U	-	-	-	-	-	-	0.59	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	1.2	1.7 U	0.33 U	-	-	-	-	-	-	0.63	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	1.7 U	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	2.3	1.7 U	0.33 U	-	-	-	-	-	-	0.67	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	1.6	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	0.99	1.7 U	0.33 U	-	-	-	-	-	-	0.43	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	0.96[1]	0.33 U	-	-	-	-	-	-	0.38 U	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	1.1	1.7 U	0.33 U	-	-	-	-	-	-	0.44	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	1.8	1.8	0.33 U	-	-	-	-	-	-	0.54	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-20*	*SB-18-20*	*SB-18-21*	*SB-18-21*	*SB-18-21*	*SB-18-21*	*SB-18-21*	*SB-18-21*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-21A*	*SB-18-22*	*SB-18-22*	*SB-18-22*	*SB-18-22*	*SB-18-22*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-20S1E2*	*SB-18-20S2E4*	*SB-18-21S0E1*	*SB-18-21S1E2*	*SB-18-21S2E4*	*SB-18-21S4E6*	*SB-18-21S6E8*	*SB-18-21S8E10*	*SB-18-21AS0E1*	*SB-18-21AS4E6*	*SB-18-21AS6E8*	*SB-18-21AS0E1*	*SB-18-21AS1E2*	*SB-18-21AS2E4*	*SB-18-21AS4E6*	*SB-18-21AS6E8*	*SB-18-21AS8E10*	*SB-18-22S2E4*	*SB-18-22S0E1*	*SB-18-22S1E2*	*SB-18-22S2E4*	*SB-18-22S4E6*
Sample Date:		*12/14/1996*	*12/14/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*
Sample Type:																						
Parameter:	***Units***																					
Inorganics																						
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	2800[de]	13	450	7300[de]	2100[de]	160	8	5	-	-	-	360	730[e]	1400[de]	570	11	12	-	340	800[e]	500	70
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																						
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																						
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																						
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-20***	***SB-18-20***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-21A***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***	***SB-18-22***
Sample Depth:		***0.5-2 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***2-4 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***
Sample ID:		***SB-18-20S1E2***	***SB-18-20S2E4***	***SB-18-21S0E1***	***SB-18-21S1E2***	***SB-18-21S2E4***	***SB-18-21S4E6***	***SB-18-21S6E8***	***SB-18-21S8E10***	***SB-18-21AS0E1***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS0E1***	***SB-18-21AS1E2***	***SB-18-21AS2E4***	***SB-18-21AS4E6***	***SB-18-21AS6E8***	***SB-18-21AS8E10***	***SB-18-22S2E4***	***SB-18-22S0E1***	***SB-18-22S1E2***	***SB-18-22S2E4***	***SB-18-22S4E6***
Sample Date:		***12/14/1996***	***12/14/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/11/1996***	***12/01/1996***	***12/01/1996***	***12/01/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/13/1996***	***12/01/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***	***12/17/1996***
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*
Sample Depth:		*0.5-2 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*
Sample ID:		*SB-18-23S1E2*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-23S0E1*	*SB-18-23S10E12*	*SB-18-23S1E2*	*SB-18-23S2E4*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-24S1E2*	*SB-18-24S0E1*	*SB-18-24S10E12*	*SB-18-24S1E2*	*SB-18-24S2E4*	*SB-18-24S4E6*	*SB-18-24S6E8*	*SB-18-24S8E10*	*SB-18-25S2E4*	*SB-18-25S0E1*	*SB-18-25S1E2*	*SB-18-25S2E4*	*SB-18-25S4E6*	*SB-18-25S6E8*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	***Units***																						
VOCs																							
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*
Sample Depth:		*0.5-2 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*
Sample ID:		*SB-18-23S1E2*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-23S0E1*	*SB-18-23S10E12*	*SB-18-23S1E2*	*SB-18-23S2E4*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-24S1E2*	*SB-18-24S0E1*	*SB-18-24S10E12*	*SB-18-24S1E2*	*SB-18-24S2E4*	*SB-18-24S4E6*	*SB-18-24S6E8*	*SB-18-24S8E10*	*SB-18-25S2E4*	*SB-18-25S0E1*	*SB-18-25S1E2*	*SB-18-25S2E4*	*SB-18-25S4E6*	*SB-18-25S6E8*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	0.33 U	0.87	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.33 U	1.4	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.33 U	4.7	0.33 U	-	-	-	-	-	-	0.93	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Acenaphthylene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.33 U	6.8	0.33 U	-	-	-	-	-	-	3	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.54	8	0.33 U	-	-	-	-	-	-	7.8	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-

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PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*
Sample Depth:		*0.5-2 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*
Sample ID:		*SB-18-23S1E2*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-23S0E1*	*SB-18-23S10E12*	*SB-18-23S1E2*	*SB-18-23S2E4*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-24S1E2*	*SB-18-24S0E1*	*SB-18-24S10E12*	*SB-18-24S1E2*	*SB-18-24S2E4*	*SB-18-24S4E6*	*SB-18-24S6E8*	*SB-18-24S8E10*	*SB-18-25S2E4*	*SB-18-25S0E1*	*SB-18-25S1E2*	*SB-18-25S2E4*	*SB-18-25S4E6*	*SB-18-25S6E8*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	6.6	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.33 U	8.3	0.42	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.33 U	3.3 U	0.35	-	-	-	-	-	-	3.8	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.48	6.3	0.33 U	-	-	-	-	-	-	9.1	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	0.75	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.33 U	22[1]	0.9	-	-	-	-	-	-	15[1]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Fluorene	mg/kg	0.33 U	4.4	0.33 U	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.33 U	3.3 U	0.4	-	-	-	-	-	-	4.9	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.33 U	4.9[1]	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.33 U	24[1]	0.41	-	-	-	-	-	-	9.1[1]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.33 U	18	0.58	-	-	-	-	-	-	14	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																								
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*
Sample Depth:		*0.5-2 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*
Sample ID:		*SB-18-23S1E2*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-23S0E1*	*SB-18-23S10E12*	*SB-18-23S1E2*	*SB-18-23S2E4*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-24S1E2*	*SB-18-24S0E1*	*SB-18-24S10E12*	*SB-18-24S1E2*	*SB-18-24S2E4*	*SB-18-24S4E6*	*SB-18-24S6E8*	*SB-18-24S8E10*	*SB-18-25S2E4*	*SB-18-25S0E1*	*SB-18-25S1E2*	*SB-18-25S2E4*	*SB-18-25S4E6*	*SB-18-25S6E8*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	*Units*																						
Inorganics																							
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	530	120	610	320	360	490	-	33	7	190	710[e]	6	6	10	-	26000[dei]	1600[de]	27	17	5
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																							
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																							
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																							
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-23*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-24*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*	*SB-18-25*
Sample Depth:		*0.5-2 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*
Sample ID:		*SB-18-23S1E2*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-23S0E1*	*SB-18-23S10E12*	*SB-18-23S1E2*	*SB-18-23S2E4*	*SB-18-23S4E6*	*SB-18-23S6E8*	*SB-18-24S1E2*	*SB-18-24S0E1*	*SB-18-24S10E12*	*SB-18-24S1E2*	*SB-18-24S2E4*	*SB-18-24S4E6*	*SB-18-24S6E8*	*SB-18-24S8E10*	*SB-18-25S2E4*	*SB-18-25S0E1*	*SB-18-25S1E2*	*SB-18-25S2E4*	*SB-18-25S4E6*	*SB-18-25S6E8*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-25*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*
Sample Depth:		*8-10.5 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-25S8E11*	*SB-18-26S2E4*	*SB-18-26S0E1*	*SB-18-26S10E12*	*SB-18-26S1E2*	*SB-18-26S2E4*	*SB-18-26S4E6*	*SB-18-26S6E8*	*SB-18-26S8E10*	*SB-18-27S2E4*	*SB-18-27S0E1*	*SB-18-27S1E2*	*SB-18-27S2E4*	*SB-18-27S4E6*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S6E8*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S12E13*	*SB-18-28S1E2*	*SB-18-28S2E4*	*SB-18-28S4E6*
Sample Date:		*12/18/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*
Sample Type:																							
Parameter:	*Units*																						
VOCs																							
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-25*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*
Sample Depth:		*8-10.5 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-25S8E11*	*SB-18-26S2E4*	*SB-18-26S0E1*	*SB-18-26S10E12*	*SB-18-26S1E2*	*SB-18-26S2E4*	*SB-18-26S4E6*	*SB-18-26S6E8*	*SB-18-26S8E10*	*SB-18-27S2E4*	*SB-18-27S0E1*	*SB-18-27S1E2*	*SB-18-27S2E4*	*SB-18-27S4E6*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S6E8*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S12E13*	*SB-18-28S1E2*	*SB-18-28S2E4*	*SB-18-28S4E6*
Sample Date:		*12/18/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*
Sample Type:																								
Parameter:	***Units***																							
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																								
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																								
1-Methylnaphthalene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	37	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	29[1]	-	-	-	-	0.33 U	2.4	0.33 U	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	9.8	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.69	6.7 U	0.33 U	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-25*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*
Sample Depth:		*8-10.5 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-25S8E11*	*SB-18-26S2E4*	*SB-18-26S0E1*	*SB-18-26S10E12*	*SB-18-26S1E2*	*SB-18-26S2E4*	*SB-18-26S4E6*	*SB-18-26S6E8*	*SB-18-26S8E10*	*SB-18-27S2E4*	*SB-18-27S0E1*	*SB-18-27S1E2*	*SB-18-27S2E4*	*SB-18-27S4E6*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S6E8*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S12E13*	*SB-18-28S1E2*	*SB-18-28S2E4*	*SB-18-28S4E6*
Sample Date:		*12/18/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*
Sample Type:																								
Parameter:	***Units***																							
Benzo(a)pyrene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.95	6.7 U	0.33 U	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	1.8	6.7 U	0.33 U	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	1.1	6.7 U	0.33 U	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.94	6.7 U	0.33 U	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	1.9	6.7 U	0.33 U	-	-	-	-	-	-
Fluorene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	14[1]	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	1.1	6.7 U	0.33 U	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	10[1]	-	-	-	-	0.33 U	6.7 U	0.33 U	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	13[1]	-	-	-	-	0.97	6.7 U	0.33 U	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	0.33 U	-	-	-	-	-	-	-	7.8 U	-	-	-	-	1.6	6.7 U	0.33 U	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																								
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-25*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*
Sample Depth:		*8-10.5 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-25S8E11*	*SB-18-26S2E4*	*SB-18-26S0E1*	*SB-18-26S10E12*	*SB-18-26S1E2*	*SB-18-26S2E4*	*SB-18-26S4E6*	*SB-18-26S6E8*	*SB-18-26S8E10*	*SB-18-27S2E4*	*SB-18-27S0E1*	*SB-18-27S1E2*	*SB-18-27S2E4*	*SB-18-27S4E6*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S6E8*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S12E13*	*SB-18-28S1E2*	*SB-18-28S2E4*	*SB-18-28S4E6*
Sample Date:		*12/18/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*
Sample Type:																								
Parameter:	***Units***																							
Inorganics																								
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	5	-	560	8	12	6	6	8	9	-	190	190	630	29	-	-	-	2900[de]	4	37	800[e]	4	45
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																								
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																								
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																								
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-25*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-26*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-27*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*	*SB-18-28*
Sample Depth:		*8-10.5 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-25S8E11*	*SB-18-26S2E4*	*SB-18-26S0E1*	*SB-18-26S10E12*	*SB-18-26S1E2*	*SB-18-26S2E4*	*SB-18-26S4E6*	*SB-18-26S6E8*	*SB-18-26S8E10*	*SB-18-27S2E4*	*SB-18-27S0E1*	*SB-18-27S1E2*	*SB-18-27S2E4*	*SB-18-27S4E6*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S6E8*	*SB-18-28S0E1*	*SB-18-28S10E12*	*SB-18-28S12E13*	*SB-18-28S1E2*	*SB-18-28S2E4*	*SB-18-28S4E6*
Sample Date:		*12/18/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/17/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-28***	***SB-18-28***	***SB-18-29***	***SB-18-29***	***SB-18-29***	***SB-18-29***	***SB-18-29***	***SB-18-29***	***SB-18-29***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-31***	***SB-18-33***	***SB-18-33***	***SB-18-33***	***SB-18-33***	***SB-18-33***	***SB-18-33***
Sample Depth:		***6-8 ft BGS***	***8-10 ft BGS***	***8.2-11 ft BGS***	***0.17-0.67 ft BGS***	***0.67-2.2 ft BGS***	***2.2-4.2 ft BGS***	***4.2-6.2 ft BGS***	***6.2-8.2 ft BGS***	***8.2-11 ft BGS***	***2.2-4.2 ft BGS***	***0.17-0.67 ft BGS***	***10.2-12 ft BGS***	***0.67-2.2 ft BGS***	***2.2-4.2 ft BGS***	***4.2-6.2 ft BGS***	***6.2-8.2 ft BGS***	***8.2-10.2 ft BGS***	***0.5-2 ft BGS***	***4-6 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-11.5 ft BGS***	***0.5-2 ft BGS***
Sample ID:		***SB-18-28S6E8***	***SB-18-28S8E10***	***SB-18-29S8E11***	***SB-18-29S0E1***	***SB-18-29S1E2***	***SB-18-29S2E4***	***SB-18-29S4E6***	***SB-18-29S6E8***	***SB-18-29S8E11***	***SB-18-31S2E4***	***SB-18-31S0E1***	***SB-18-31S10E12***	***SB-18-31S1E2***	***SB-18-31S2E4***	***SB-18-31S4E6***	***SB-18-31S6E8***	***SB-18-31S8E10***	***SB-18-33S1E2***	***SB-18-33S4E6***	***SB-18-33S8E10***	***SB-18-33S0E1***	***SB-18-33S10E12***	***SB-18-33S1E2***
Sample Date:		***12/11/1996***	***12/11/1996***	***12/01/1996***	***12/18/1996***	***12/18/1996***	***12/18/1996***	***12/18/1996***	***12/18/1996***	***12/18/1996***	***12/01/1996***	***12/14/1996***	***12/14/1996***	***12/14/1996***	***12/14/1996***	***12/14/1996***	***12/14/1996***	***12/14/1996***	***12/01/1996***	***12/01/1996***	***12/01/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***
Sample Type:																								
Parameter:	***Units***																							
VOCs																								
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-28*	*SB-18-28*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*
Sample Depth:		*6-8 ft BGS*	*8-10 ft BGS*	*8.2-11 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-11 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0.5-2 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-11.5 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-28S6E8*	*SB-18-28S8E10*	*SB-18-29S8E11*	*SB-18-29S0E1*	*SB-18-29S1E2*	*SB-18-29S2E4*	*SB-18-29S4E6*	*SB-18-29S6E8*	*SB-18-29S8E11*	*SB-18-31S2E4*	*SB-18-31S0E1*	*SB-18-31S10E12*	*SB-18-31S1E2*	*SB-18-31S2E4*	*SB-18-31S4E6*	*SB-18-31S6E8*	*SB-18-31S8E10*	*SB-18-33S1E2*	*SB-18-33S4E6*	*SB-18-33S8E10*	*SB-18-33S0E1*	*SB-18-33S10E12*	*SB-18-33S1E2*
Sample Date:		*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	1.9	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Acenaphthylene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.8	0.33 U	0.33 U	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-28*	*SB-18-28*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*
Sample Depth:		*6-8 ft BGS*	*8-10 ft BGS*	*8.2-11 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-11 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0.5-2 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-11.5 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-28S6E8*	*SB-18-28S8E10*	*SB-18-29S8E11*	*SB-18-29S0E1*	*SB-18-29S1E2*	*SB-18-29S2E4*	*SB-18-29S4E6*	*SB-18-29S6E8*	*SB-18-29S8E11*	*SB-18-31S2E4*	*SB-18-31S0E1*	*SB-18-31S10E12*	*SB-18-31S1E2*	*SB-18-31S2E4*	*SB-18-31S4E6*	*SB-18-31S6E8*	*SB-18-31S8E10*	*SB-18-33S1E2*	*SB-18-33S4E6*	*SB-18-33S8E10*	*SB-18-33S0E1*	*SB-18-33S10E12*	*SB-18-33S1E2*
Sample Date:		*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	3.9	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	1.3	0.33 U	0.33 U	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	1.8	0.33 U	0.33 U	-	-	-
Fluorene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.66	0.33 U	0.33 U	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	3.3 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	1.6	0.33 U	0.33 U	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																								
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-28*	*SB-18-28*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*
Sample Depth:		*6-8 ft BGS*	*8-10 ft BGS*	*8.2-11 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-11 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0.5-2 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-11.5 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-28S6E8*	*SB-18-28S8E10*	*SB-18-29S8E11*	*SB-18-29S0E1*	*SB-18-29S1E2*	*SB-18-29S2E4*	*SB-18-29S4E6*	*SB-18-29S6E8*	*SB-18-29S8E11*	*SB-18-31S2E4*	*SB-18-31S0E1*	*SB-18-31S10E12*	*SB-18-31S1E2*	*SB-18-31S2E4*	*SB-18-31S4E6*	*SB-18-31S6E8*	*SB-18-31S8E10*	*SB-18-33S1E2*	*SB-18-33S4E6*	*SB-18-33S8E10*	*SB-18-33S0E1*	*SB-18-33S10E12*	*SB-18-33S1E2*
Sample Date:		*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*
Sample Type:																							
Parameter:	***Units***																						
Inorganics																							
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	6	5	-	8	200	13	8	24	62	-	4	5	15	4	2	5	4	-	-	-	330	3	9100[dei]
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																							
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																							
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																							
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-28*	*SB-18-28*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-29*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-31*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*
Sample Depth:		*6-8 ft BGS*	*8-10 ft BGS*	*8.2-11 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-11 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0.5-2 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-11.5 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-28S6E8*	*SB-18-28S8E10*	*SB-18-29S8E11*	*SB-18-29S0E1*	*SB-18-29S1E2*	*SB-18-29S2E4*	*SB-18-29S4E6*	*SB-18-29S6E8*	*SB-18-29S8E11*	*SB-18-31S2E4*	*SB-18-31S0E1*	*SB-18-31S10E12*	*SB-18-31S1E2*	*SB-18-31S2E4*	*SB-18-31S4E6*	*SB-18-31S6E8*	*SB-18-31S8E10*	*SB-18-33S1E2*	*SB-18-33S4E6*	*SB-18-33S8E10*	*SB-18-33S0E1*	*SB-18-33S10E12*	*SB-18-33S1E2*
Sample Date:		*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*
Sample Depth:		*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*8.2-10.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-33S2E4*	*SB-18-33S4E6*	*SB-18-33S6E8*	*SB-18-33S8E10*	*SB-18-35S2E4*	*SB-18-35S8E10*	*SB-18-35S0E1*	*SB-18-35S10E12*	*SB-18-35S1E2*	*SB-18-35S2E4*	*SB-18-35S4E6*	*SB-18-35S6E8*	*SB-18-35S8E10*	*SB-18-36S2E4*	*SB-18-36S0E1*	*SB-18-36S1E2*	*SB-18-36S2E4*	*SB-18-36S4E5*	*SB-18-37S0E1*	*SB-18-37S10E12*	*SB-18-37S2E4*	*SB-18-37S0E1*	*SB-18-37S10E12*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
VOCs																							
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	3.8[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*
Sample Depth:		*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*8.2-10.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-33S2E4*	*SB-18-33S4E6*	*SB-18-33S6E8*	*SB-18-33S8E10*	*SB-18-35S2E4*	*SB-18-35S8E10*	*SB-18-35S0E1*	*SB-18-35S10E12*	*SB-18-35S1E2*	*SB-18-35S2E4*	*SB-18-35S4E6*	*SB-18-35S6E8*	*SB-18-35S8E10*	*SB-18-36S2E4*	*SB-18-36S0E1*	*SB-18-36S1E2*	*SB-18-36S2E4*	*SB-18-36S4E5*	*SB-18-37S0E1*	*SB-18-37S10E12*	*SB-18-37S2E4*	*SB-18-37S0E1*	*SB-18-37S10E12*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	53[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	15[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	-	-	230	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	0.95	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	290[ei]	6[i]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	1.7	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	41[i]	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	0.76	-	-
Acenaphthylene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	2.6	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	5.6	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.2	0.33 U	7.2	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*
Sample Depth:		*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*8.2-10.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-33S2E4*	*SB-18-33S4E6*	*SB-18-33S6E8*	*SB-18-33S8E10*	*SB-18-35S2E4*	*SB-18-35S8E10*	*SB-18-35S0E1*	*SB-18-35S10E12*	*SB-18-35S1E2*	*SB-18-35S2E4*	*SB-18-35S4E6*	*SB-18-35S6E8*	*SB-18-35S8E10*	*SB-18-36S2E4*	*SB-18-36S0E1*	*SB-18-36S1E2*	*SB-18-36S2E4*	*SB-18-36S4E5*	*SB-18-37S0E1*	*SB-18-37S10E12*	*SB-18-37S2E4*	*SB-18-37S0E1*	*SB-18-37S10E12*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.8	0.33 U	4.2	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.7	0.33 U	7.2	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	2	0.33 U	3.3 U	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.8	0.33 U	3.3 U	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.5	0.33 U	5.8	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	3.3 U	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	40 U	**9.1[i]**	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.7	0.33 U	**14[i]**	-	-
Fluorene	mg/kg	-	-	-	-	**55[i]**	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	3.3	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	40 U	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	2.4	0.33 U	3.6	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	**110[ei]**	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	0.33 U	**6[i]**	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	**61[i]**	2.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	0.52	0.33 U	**11[i]**	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	40 U	3.6	-	-	-	-	-	-	-	0.33 U	-	-	-	-	1.7	0.33 U	10	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*
Sample Depth:		*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*8.2-10.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-33S2E4*	*SB-18-33S4E6*	*SB-18-33S6E8*	*SB-18-33S8E10*	*SB-18-35S2E4*	*SB-18-35S8E10*	*SB-18-35S0E1*	*SB-18-35S10E12*	*SB-18-35S1E2*	*SB-18-35S2E4*	*SB-18-35S4E6*	*SB-18-35S6E8*	*SB-18-35S8E10*	*SB-18-36S2E4*	*SB-18-36S0E1*	*SB-18-36S1E2*	*SB-18-36S2E4*	*SB-18-36S4E5*	*SB-18-37S0E1*	*SB-18-37S10E12*	*SB-18-37S2E4*	*SB-18-37S0E1*	*SB-18-37S10E12*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Inorganics																							
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	5	3	7	5	-	-	15	6	70	8100[dei]	3100[de]	18	360	-	8	5	5	4	-	-	-	4400[de]	6
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																								
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																								
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																								
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-33*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-35*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-36*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*
Sample Depth:		*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*8.2-10.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-33S2E4*	*SB-18-33S4E6*	*SB-18-33S6E8*	*SB-18-33S8E10*	*SB-18-35S2E4*	*SB-18-35S8E10*	*SB-18-35S0E1*	*SB-18-35S10E12*	*SB-18-35S1E2*	*SB-18-35S2E4*	*SB-18-35S4E6*	*SB-18-35S6E8*	*SB-18-35S8E10*	*SB-18-36S2E4*	*SB-18-36S0E1*	*SB-18-36S1E2*	*SB-18-36S2E4*	*SB-18-36S4E5*	*SB-18-37S0E1*	*SB-18-37S10E12*	*SB-18-37S2E4*	*SB-18-37S0E1*	*SB-18-37S10E12*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-37S1E2*	*SB-18-37S2E4*	*SB-18-37S4E6*	*SB-18-37S6E8*	*SB-18-37S8E10*	*SB-18-38S2E4*	*SB-18-38S0E1*	*SB-18-38S1E2*	*SB-18-38S2E4*	*SB-18-38S4E5*	*SB-18-39S2E4*	*SB-18-39S0E1*	*SB-18-39S10E12*	*SB-18-39S1E2*	*SB-18-39S2E4*	*SB-18-39S4E8*	*SB-18-39S6E8*	*SB-18-39S8E10*	*SB-18-40S2E4*	*SB-18-40S0E1*	*SB-18-40S1E2*	*SB-18-40S2E4*	*SB-18-40S4E6*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*
Sample Type:																							
Parameter:	***Units***																							
VOCs																								
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-37S1E2*	*SB-18-37S2E4*	*SB-18-37S4E6*	*SB-18-37S6E8*	*SB-18-37S8E10*	*SB-18-38S2E4*	*SB-18-38S0E1*	*SB-18-38S1E2*	*SB-18-38S2E4*	*SB-18-38S4E5*	*SB-18-39S2E4*	*SB-18-39S0E1*	*SB-18-39S10E12*	*SB-18-39S1E2*	*SB-18-39S2E4*	*SB-18-39S4E8*	*SB-18-39S6E8*	*SB-18-39S8E10*	*SB-18-40S2E4*	*SB-18-40S0E1*	*SB-18-40S1E2*	*SB-18-40S2E4*	*SB-18-40S4E6*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-37S1E2*	*SB-18-37S2E4*	*SB-18-37S4E6*	*SB-18-37S6E8*	*SB-18-37S8E10*	*SB-18-38S2E4*	*SB-18-38S0E1*	*SB-18-38S1E2*	*SB-18-38S2E4*	*SB-18-38S4E5*	*SB-18-39S2E4*	*SB-18-39S0E1*	*SB-18-39S10E12*	*SB-18-39S1E2*	*SB-18-39S2E4*	*SB-18-39S4E8*	*SB-18-39S6E8*	*SB-18-39S8E10*	*SB-18-40S2E4*	*SB-18-40S0E1*	*SB-18-40S1E2*	*SB-18-40S2E4*	*SB-18-40S4E6*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*
Sample Type:																							
Parameter:	***Units***																							
Benzo(a)pyrene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	0.33 U	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-37S1E2*	*SB-18-37S2E4*	*SB-18-37S4E6*	*SB-18-37S6E8*	*SB-18-37S8E10*	*SB-18-38S2E4*	*SB-18-38S0E1*	*SB-18-38S1E2*	*SB-18-38S2E4*	*SB-18-38S4E5*	*SB-18-39S2E4*	*SB-18-39S0E1*	*SB-18-39S10E12*	*SB-18-39S1E2*	*SB-18-39S2E4*	*SB-18-39S4E8*	*SB-18-39S6E8*	*SB-18-39S8E10*	*SB-18-40S2E4*	*SB-18-40S0E1*	*SB-18-40S1E2*	*SB-18-40S2E4*	*SB-18-40S4E6*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*
Sample Type:																								
Parameter:	*Units*																							
Inorganics																								
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	200	47	13	3	7	-	42	8	4	2	-	1	8	4	4	3	7	2	-	97	13	5	3
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																								
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																								
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																								
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-37*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-38*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-39*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*	*SB-18-40*
Sample Depth:		*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-18-37S1E2*	*SB-18-37S2E4*	*SB-18-37S4E6*	*SB-18-37S6E8*	*SB-18-37S8E10*	*SB-18-38S2E4*	*SB-18-38S0E1*	*SB-18-38S1E2*	*SB-18-38S2E4*	*SB-18-38S4E5*	*SB-18-39S2E4*	*SB-18-39S0E1*	*SB-18-39S10E12*	*SB-18-39S1E2*	*SB-18-39S2E4*	*SB-18-39S4E8*	*SB-18-39S6E8*	*SB-18-39S8E10*	*SB-18-40S2E4*	*SB-18-40S0E1*	*SB-18-40S1E2*	*SB-18-40S2E4*	*SB-18-40S4E6*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/14/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-43*	*SB-18-43*	*SB-18-43*
Sample Depth:		*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S1E2*	*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S12E14*	*SB-18-41S1E2*	*SB-18-41S2E4*	*SB-18-41S4E6*	*SB-18-41S6E8*	*SB-18-41S8E10*	*SB-18-41AS2E4*	*SB-18-41AS0E1*	*SB-18-41AS10E11*	*SB-18-41AS1E2*	*SB-18-41AS2E4*	*SB-18-41AS4E6*	*SB-18-41AS6E8*	*SB-18-41AS8E10*	*SB-18-43S0E1*	*SB-18-43S0E1*	*SB-18-43S10E12*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	*Units*																						
VOCs																							
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-43*	*SB-18-43*	*SB-18-43*
Sample Depth:		*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S1E2*	*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S12E14*	*SB-18-41S1E2*	*SB-18-41S2E4*	*SB-18-41S4E6*	*SB-18-41S6E8*	*SB-18-41S8E10*	*SB-18-41AS2E4*	*SB-18-41AS0E1*	*SB-18-41AS10E11*	*SB-18-41AS1E2*	*SB-18-41AS2E4*	*SB-18-41AS4E6*	*SB-18-41AS6E8*	*SB-18-41AS8E10*	*SB-18-43S0E1*	*SB-18-43S0E1*	*SB-18-43S10E12*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																							
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-
Acenaphthylene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.83	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	1.6	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-43*	*SB-18-43*	*SB-18-43*
Sample Depth:		*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S1E2*	*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S12E14*	*SB-18-41S1E2*	*SB-18-41S2E4*	*SB-18-41S4E6*	*SB-18-41S6E8*	*SB-18-41S8E10*	*SB-18-41AS2E4*	*SB-18-41AS0E1*	*SB-18-41AS10E11*	*SB-18-41AS1E2*	*SB-18-41AS2E4*	*SB-18-41AS4E6*	*SB-18-41AS6E8*	*SB-18-41AS8E10*	*SB-18-43S0E1*	*SB-18-43S0E1*	*SB-18-43S10E12*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Benzo(b)fluoranthene	mg/kg	0.36	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	4.1	-	-
Benzo(g,h,i)perylene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Benzo(k)fluoranthene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Dibenz(a,h)anthracene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.44	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	4.4	-	-
Fluorene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	3 U	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	2.5[1]	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.43	0.33 U	0.33 U	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	4.4	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-43*	*SB-18-43*	*SB-18-43*
Sample Depth:		*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S1E2*	*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S12E14*	*SB-18-41S1E2*	*SB-18-41S2E4*	*SB-18-41S4E6*	*SB-18-41S6E8*	*SB-18-41S8E10*	*SB-18-41AS2E4*	*SB-18-41AS0E1*	*SB-18-41AS10E11*	*SB-18-41AS1E2*	*SB-18-41AS2E4*	*SB-18-41AS4E6*	*SB-18-41AS6E8*	*SB-18-41AS8E10*	*SB-18-43S0E1*	*SB-18-43S0E1*	*SB-18-43S10E12*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	*Units*																						
Inorganics																							
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	170	3	6	6	11	10	5	6	-	37	3	23	3	7	4	5	-	2500 de	3
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																							
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																							
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																							
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-41A*	*SB-18-43*	*SB-18-43*	*SB-18-43*
Sample Depth:		*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*
Sample ID:		*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S1E2*	*SB-18-41S0E1*	*SB-18-41S10E12*	*SB-18-41S12E14*	*SB-18-41S1E2*	*SB-18-41S2E4*	*SB-18-41S4E6*	*SB-18-41S6E8*	*SB-18-41S8E10*	*SB-18-41AS2E4*	*SB-18-41AS0E1*	*SB-18-41AS10E11*	*SB-18-41AS1E2*	*SB-18-41AS2E4*	*SB-18-41AS4E6*	*SB-18-41AS6E8*	*SB-18-41AS8E10*	*SB-18-43S0E1*	*SB-18-43S0E1*	*SB-18-43S10E12*
Sample Date:		*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	***Units***																						
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																							
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																							
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-51*
Sample Depth:		*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-43S12E13*	*SB-18-43S1E2*	*SB-18-43S2E4*	*SB-18-43S4E6*	*SB-18-43S6E8*	*SB-18-43S8E10*	*SB-18-45S4E6*	*SB-18-45S0E1*	*SB-18-45S10E11*	*SB-18-45S1E2*	*SB-18-45S2E4*	*SB-18-45S4E6*	*SB-18-45S6E8*	*SB-18-45S8E10*	*SB-18-48S1E2*	*SB-18-48S0E1*	*SB-18-48S10E11*	*SB-18-48S1E2*	*SB-18-48S2E4*	*SB-18-48S46E8*	*SB-18-48S4E6*	*SB-18-48S8E10*	*SB-18-511E2*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*		*03/01/1997*
Sample Type:																								
Parameter:	***Units***																							
VOCs																								
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-51*
Sample Depth:		*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-43S12E13*	*SB-18-43S1E2*	*SB-18-43S2E4*	*SB-18-43S4E6*	*SB-18-43S6E8*	*SB-18-43S8E10*	*SB-18-45S4E6*	*SB-18-45S0E1*	*SB-18-45S10E11*	*SB-18-45S1E2*	*SB-18-45S2E4*	*SB-18-45S4E6*	*SB-18-45S6E8*	*SB-18-45S8E10*	*SB-18-48S1E2*	*SB-18-48S0E1*	*SB-18-48S10E11*	*SB-18-48S1E2*	*SB-18-48S2E4*	*SB-18-48S46E8*	*SB-18-48S4E6*	*SB-18-48S8E10*	*SB-18-511E2*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*		*03/01/1997*
Sample Type:																								
Parameter:	***Units***																							
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																								
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																								
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Acenaphthylene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-51*
Sample Depth:		*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-43S12E13*	*SB-18-43S1E2*	*SB-18-43S2E4*	*SB-18-43S4E6*	*SB-18-43S6E8*	*SB-18-43S8E10*	*SB-18-45S4E6*	*SB-18-45S0E1*	*SB-18-45S10E11*	*SB-18-45S1E2*	*SB-18-45S2E4*	*SB-18-45S4E6*	*SB-18-45S6E8*	*SB-18-45S8E10*	*SB-18-48S1E2*	*SB-18-48S0E1*	*SB-18-48S10E11*	*SB-18-48S1E2*	*SB-18-48S2E4*	*SB-18-48S46E8*	*SB-18-48S4E6*	*SB-18-48S8E10*	*SB-18-511E2*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*		*03/01/1997*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Fluorene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	0.35 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-51*
Sample Depth:		*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-43S12E13*	*SB-18-43S1E2*	*SB-18-43S2E4*	*SB-18-43S4E6*	*SB-18-43S6E8*	*SB-18-43S8E10*	*SB-18-45S4E6*	*SB-18-45S0E1*	*SB-18-45S10E11*	*SB-18-45S1E2*	*SB-18-45S2E4*	*SB-18-45S4E6*	*SB-18-45S6E8*	*SB-18-45S8E10*	*SB-18-48S1E2*	*SB-18-48S0E1*	*SB-18-48S10E11*	*SB-18-48S1E2*	*SB-18-48S2E4*	*SB-18-48S46E8*	*SB-18-48S4E6*	*SB-18-48S8E10*	*SB-18-511E2*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*		*03/01/1997*
Sample Type:																								
Parameter:	***Units***																							
Inorganics																								
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	14	700	11	35	6	52	-	1700[de]	8	340	4	8	10	4	-	100	3	7	3	3	4	4	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																								
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																								
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																								
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-43*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-45*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-48*	*SB-18-51*
Sample Depth:		*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*0.5-2 ft BGS*
Sample ID:		*SB-18-43S12E13*	*SB-18-43S1E2*	*SB-18-43S2E4*	*SB-18-43S4E6*	*SB-18-43S6E8*	*SB-18-43S8E10*	*SB-18-45S4E6*	*SB-18-45S0E1*	*SB-18-45S10E11*	*SB-18-45S1E2*	*SB-18-45S2E4*	*SB-18-45S4E6*	*SB-18-45S6E8*	*SB-18-45S8E10*	*SB-18-48S1E2*	*SB-18-48S0E1*	*SB-18-48S10E11*	*SB-18-48S1E2*	*SB-18-48S2E4*	*SB-18-48S46E8*	*SB-18-48S4E6*	*SB-18-48S8E10*	*SB-18-511E2*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/16/1996*	*12/01/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*	*12/13/1996*		*03/01/1997*
Sample Type:																								
Parameter:	***Units***																							
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																								
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																								
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-56*	*SB-18-56*	*SB-18-56*	*SB-18-56*
Sample Depth:		*0-0.5 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-51S0E1*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-51S0E1*	*SB-18-51S10E12*	*SB-18-51S1E2*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-54S0E1*	*SB-18-54S10E12*	*SB-18-54S1E2*	*SB-18-54S2E4*	*SB-18-54S4E6*	*SB-18-54S6E8*	*SB-18-54S8E10*	*SB-18-56S0E1*	*SB-18-56S10E12*	*SB-18-56S1E2*	*SB-18-56S2E4*
Sample Date:		*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																								
Parameter:	***Units***																							
VOCs																								
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-56*	*SB-18-56*	*SB-18-56*	*SB-18-56*
Sample Depth:		*0-0.5 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-51S0E1*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-51S0E1*	*SB-18-51S10E12*	*SB-18-51S1E2*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-54S0E1*	*SB-18-54S10E12*	*SB-18-54S1E2*	*SB-18-54S2E4*	*SB-18-54S4E6*	*SB-18-54S6E8*	*SB-18-54S8E10*	*SB-18-56S0E1*	*SB-18-56S10E12*	*SB-18-56S1E2*	*SB-18-56S2E4*
Sample Date:		*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																								
Parameter:	***Units***																							
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP VOCs																								
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																								
1-Methylnaphthalene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	1.4	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-56*	*SB-18-56*	*SB-18-56*	*SB-18-56*
Sample Depth:		*0-0.5 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-51S0E1*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-51S0E1*	*SB-18-51S10E12*	*SB-18-51S1E2*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-54S0E1*	*SB-18-54S10E12*	*SB-18-54S1E2*	*SB-18-54S2E4*	*SB-18-54S4E6*	*SB-18-54S6E8*	*SB-18-54S8E10*	*SB-18-56S0E1*	*SB-18-56S10E12*	*SB-18-56S1E2*	*SB-18-56S2E4*
Sample Date:		*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																							
Parameter:	***Units***																						
Benzo(a)pyrene	mg/kg	0.75	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.89	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.82	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.78	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	1.5	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	2.8	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.77	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.98	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	1.9	0.33 U	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs																							
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-56*	*SB-18-56*	*SB-18-56*	*SB-18-56*
Sample Depth:		*0-0.5 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-51S0E1*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-51S0E1*	*SB-18-51S10E12*	*SB-18-51S1E2*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-54S0E1*	*SB-18-54S10E12*	*SB-18-54S1E2*	*SB-18-54S2E4*	*SB-18-54S4E6*	*SB-18-54S6E8*	*SB-18-54S8E10*	*SB-18-56S0E1*	*SB-18-56S10E12*	*SB-18-56S1E2*	*SB-18-56S2E4*
Sample Date:		*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																								
Parameter:	***Units***																							
Inorganics																								
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	520	8	260	8	5	5	32	70	6	12	37	7	7	7	390	3.1	49	4
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals																								
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																								
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons																								
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-51*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-54*	*SB-18-56*	*SB-18-56*	*SB-18-56*	*SB-18-56*
Sample Depth:		*0-0.5 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-51S0E1*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-51S0E1*	*SB-18-51S10E12*	*SB-18-51S1E2*	*SB-18-51S2E4*	*SB-18-51S4E6*	*SB-18-51S6E8*	*SB-18-51S8E10*	*SB-18-54S0E1*	*SB-18-54S10E12*	*SB-18-54S1E2*	*SB-18-54S2E4*	*SB-18-54S4E6*	*SB-18-54S6E8*	*SB-18-54S8E10*	*SB-18-56S0E1*	*SB-18-56S10E12*	*SB-18-56S1E2*	*SB-18-56S2E4*
Sample Date:		*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/01/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																								
Parameter:	***Units***																							
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geotech																								
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc																								
Clay	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-56***	***SB-18-56***	***SB-18-56***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***
Sample Depth:		***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-12 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-56S4E6***	***SB-18-56S6E8***	***SB-18-56S8E10***	***SB-18-57S0E1***	***SB-18-57S10E12***	***SB-18-57S1E2***	***SB-18-57S2E4***	***SB-18-57S4E6***	***SB-18-57S6E8***	***SB-18-57S8E10***
Sample Date:		***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***
Sample Type:											
Parameter:	***Units***										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-56***	***SB-18-56***	***SB-18-56***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***
Sample Depth:		***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-12 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-56S4E6***	***SB-18-56S6E8***	***SB-18-56S8E10***	***SB-18-57S0E1***	***SB-18-57S10E12***	***SB-18-57S1E2***	***SB-18-57S2E4***	***SB-18-57S4E6***	***SB-18-57S6E8***	***SB-18-57S8E10***
Sample Date:		***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***
Sample Type:											
Parameter:	***Units***										
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-56***	***SB-18-56***	***SB-18-56***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***
Sample Depth:		***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-12 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-56S4E6***	***SB-18-56S6E8***	***SB-18-56S8E10***	***SB-18-57S0E1***	***SB-18-57S10E12***	***SB-18-57S1E2***	***SB-18-57S2E4***	***SB-18-57S4E6***	***SB-18-57S6E8***	***SB-18-57S8E10***
Sample Date:		***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***
Sample Type:											
Parameter:	***Units***										
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs											
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-56***	***SB-18-56***	***SB-18-56***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***
Sample Depth:		***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-12 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-56S4E6***	***SB-18-56S6E8***	***SB-18-56S8E10***	***SB-18-57S0E1***	***SB-18-57S10E12***	***SB-18-57S1E2***	***SB-18-57S2E4***	***SB-18-57S4E6***	***SB-18-57S6E8***	***SB-18-57S8E10***
Sample Date:		***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***
Sample Type:											
Parameter:	***Units***										
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	4	7.4	5.6	5	4	3	4	9	9	9
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon	%	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1A

PAOC 18 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB-18-56***	***SB-18-56***	***SB-18-56***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***	***SB-18-57***
Sample Depth:		***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***0-0.5 ft BGS***	***10-12 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-56S4E6***	***SB-18-56S6E8***	***SB-18-56S8E10***	***SB-18-57S0E1***	***SB-18-57S10E12***	***SB-18-57S1E2***	***SB-18-57S2E4***	***SB-18-57S4E6***	***SB-18-57S6E8***	***SB-18-57S8E10***
Sample Date:		***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***	***03/22/1997***
Sample Type:											
Parameter:	***Units***										
Ignitability	Deg F	-	-	-	-	-	-	-	-	-	-
N-Hexane extractable material	mg/kg	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	-	-	-	-	-	-	-	-	-	-
pH Corrosivity	s.u.	-	-	-	-	-	-	-	-	-	-
Reactive cyanide	mg/kg	-	-	-	-	-	-	-	-	-	-
Reactive sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-
Geotech											
Permeability	cm/sec	-	-	-	-	-	-	-	-	-	-
Misc											
Clay	%	-	-	-	-	-	-	-	-	-	-
Fine sand	%	-	-	-	-	-	-	-	-	-	-
Gravel	%	-	-	-	-	-	-	-	-	-	-
Silt	%	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
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PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source VSIC*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830	
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220	
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360	
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000	
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000	
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID

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PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source VSIC*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560	
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82
TCLP VOCs											
1,1-Dichloroethene	mg/L		37	15	3.7	570	0.14	0.33	78000	220	2.6
1,2-Dichloroethane	mg/L		74	33	21	420	0.1	11	150000	380	7.2
1,4-Dichlorobenzene	mg/L		340	260	260	1900	1.7	100	570000	140	0.36
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L		36000	35000	35000	27000	760	27000	29000000	27000	44
Benzene	mg/L		230	99	45	400	0.1	8.4	470000	220	4
Carbon tetrachloride	mg/L		79	34	12	390	0.1	0.99	170000	92	0.9
Chlorobenzene	mg/L		2100	1100	920	260	2	220	2100000	260	0.5
Chloroform (Trichloromethane)	mg/L		790	340	150	1500	1.6	38	1600000	1500	7
Tetrachloroethene	mg/L		3300	1400	600	88	0.1	60	6800000	88	1.2
Trichloroethene	mg/L		1100	440	260	500	0.1	37	2300000	440	4
Vinyl chloride	mg/L		420	170	29	34	0.04	2.8	890000	20	0.26
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100	
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170	

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		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300	
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190	
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41	-	29000000	41	ID
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000	-	
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790	
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730	-	4100000	730	5.5
Fluorene	mg/kg	-	150000	150000	150000	87000	890	-	4100000	890	5.3
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID

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		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2	
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700	
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9
Pyrene	mg/kg	-	780000	780000	780000	84000	480	-	2900000	480	ID
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37	
Inorganics											
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID	-	
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000	-	1250
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590	-	948
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000	-	167
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID	-	
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740
Magnesium	mg/kg	-	NLV	NLV	NLV	-	22000	NLV	2900000	-	
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000	-	166
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1
Sodium	mg/kg	-	NLV	NLV	NLV	-	7000	NLV	ID	-	
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID	-	190
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID	-	377
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1
TCLP Metals											
Arsenic	mg/L		NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6
Barium	mg/L		NLV	NLV	NLV	130000	1300	NLV	150000	-	1250
Cadmium	mg/L		NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32

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YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source VSIC*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*
	Units	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
Chromium	mg/L		NLV	NLV	NLV	9200	30	NLV	240	140000	3.3
Copper	mg/L		NLV	NLV	NLV	73000	5800	NLV	59000	-	167
Lead	mg/L		NLV	NLV	NLV	900	700	NLV	44000	ID	7740
Mercury	mg/L		62	62	62	580	1.7	89	8800	47	0.05
Selenium	mg/L		NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4
Silver	mg/L		NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1
Zinc	mg/L		NLV	NLV	NLV	630000	5000	NLV	ID	-	377
PCBs											
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
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YPSILANTI, MICHIGAN

PAOC		*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*Screening Levels*	*SB19-12*	*SB19-12*	*SB19-13*	*SB19-13*	*SB19-13*	*SB19-16*	*SB19-16*	*B-11*	*MW19-17*
Sample Depth:			*3-5 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*-*	*0-2 ft BGS*
Sample ID:			*S-17303-112103-DD-239*	*S-17303-112103-DD-240*	*S-17303-112103-DD-236*	*S-17303-112103-DD-237*	*S-17303-112103-DD-238*	*S-17303-111403-DD-213*	*S-17303-111403-DD-214*	*S-17303-040903-DCR-187*	*S-17303-111103-DD-203*
Sample Date:			*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/14/2003*	*11/14/2003*	*04/09/2003*	*11/11/2003*
Sample Type:											
Parameter:	*Units*	*j*									
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	440	-	-	-	-	-	-	-	0.33 U	-
1,1,1-Trichloroethane	mg/kg	460	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,1,2,2-Tetrachloroethane	mg/kg	870	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
1,1,2-Trichloroethane	mg/kg	920	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,1-Dichloroethane	mg/kg	890	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,1-Dichloroethene	mg/kg	570	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,2,3-Trichloropropane	mg/kg	830	-	-	-	-	-	-	-	0.33 U	-
1,2,4-Trichlorobenzene	mg/kg	1100	7.2 J[ei]	3.1 J	0.95 U	-	7500 U	0.32 U	0.85 U	0.77	0.22 UJ
1,2,4-Trimethylbenzene	mg/kg	110	-	-	-	-	-	-	-	0.33 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	1.2	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	890	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	-	0.22 UJ
1,2-Dichlorobenzene	mg/kg	210	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
1,2-Dichloroethane	mg/kg	1200	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	550	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
1,3,5-Trimethylbenzene	mg/kg	94	-	-	-	-	-	-	-	0.33 U	-
1,3-Dichlorobenzene	mg/kg	170	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
1,3-Dichloropropene	mg/kg	620	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
1-Chloro-2,3-epoxypropane	mg/kg	7300	-	-	-	-	-	-	-	1.6 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	27000	36 U	73 U	2.9 U	-	22000 U	0.95 U	2.5 U	0.98 U	0.67 UJ
2-Hexanone	mg/kg	2500	120 U	240 U	9.5 U	-	75000 U	3.2 U	8.5 U	3.3 U	2.2 UJ
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	1.3 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2700	120 U	240 U	9.5 U	-	75000 U	3.2 U	8.5 U	3.3 U	2.2 UJ
Acetone	mg/kg	110000	36 U	73 U	2.9 U	-	22000 U	0.95 U	2.5 U	-	0.67 UJ
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	0 U	-
Benzene	mg/kg	400	2.4 U	4.8 U	0.081 J	-	1500 U	0.063 U	0.17 U	-	0.045 UJ
Bromobenzene	mg/kg	760	-	-	-	-	-	-	-	0.33 U	-
Bromodichloromethane	mg/kg	1500	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
Bromoform	mg/kg	870	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	0.13 U	0.089 UJ
Bromomethane (Methyl bromide)	mg/kg	2200	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
Carbon disulfide	mg/kg	280	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
Carbon tetrachloride	mg/kg	390	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Chlorobenzene	mg/kg	260	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	0.33 U	-
Chloroethane	mg/kg	950	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
Chloroform (Trichloromethane)	mg/kg	1500	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Chloromethane (Methyl chloride)	mg/kg	1100	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
cis-1,2-Dichloroethene	mg/kg	640	89[efi]	100[efi]	5.5[e]	-	1400 J[bcdefhij]	0.063 U	5[e]	34[ei]	0.045 UJ
cis-1,3-Dichloropropene	mg/kg	-	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	-	0.045 UJ
Cyclohexane	mg/kg	-	58 U	120 U	4.6 U	-	36000 U	1.5 U	4.1 U	-	1.1 UJ
Cyclohexanone	mg/kg	220000	-	-	-	-	-	-	-	33 U	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	0.33 U	-
Dibromochloromethane	mg/kg	610	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Dibromomethane	mg/kg	2000	-	-	-	-	-	-	-	0.33 U	-
Dichlorodifluoromethane (CFC-12)	mg/kg	1000	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	-	0.089 UJ

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PAOC		*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*Screening Levels*	***SB19-12***	***SB19-12***	***SB19-13***	***SB19-13***	***SB19-13***	***SB19-16***	***SB19-16***	***B-11***	***MW19-17***
Sample Depth:			***3-5 ft BGS***	***7-9 ft BGS***	***0-2 ft BGS***	***2-4 ft BGS***	***8-10 ft BGS***	***0-2 ft BGS***	***4-6 ft BGS***	***-***	***0-2 ft BGS***
Sample ID:			***S-17303-112103-DD-239***	***S-17303-112103-DD-240***	***S-17303-112103-DD-236***	***S-17303-112103-DD-237***	***S-17303-112103-DD-238***	***S-17303-111403-DD-213***	***S-17303-111403-DD-214***	***S-17303-040903-DCR-187***	***S-17303-111103-DD-203***
Sample Date:			***11/21/2003***	***11/21/2003***	***11/21/2003***	***11/21/2003***	***11/21/2003***	***11/14/2003***	***11/14/2003***	***04/09/2003***	***11/11/2003***
Sample Type:											
Parameter:	***Units***	*j*									
Ethyl ether	mg/kg	7400	-	-	-	-	-	-	-	1.3 U	-
Ethylbenzene	mg/kg	140	4.8 ei	15 ei	0.24	-	730 J defhij	0.063 U	0.17 U	0.26	0.013 J
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	0.65 U	-
Isopropyl benzene	mg/kg	390	1.3 J	4.5 J i	0.076 J	-	7500 U	0.32 U	0.85 U	0.33 U	0.22 UJ
Methyl acetate	mg/kg	-	58 U	120 U	4.6 U	-	36000 U	0.11 J	4.1 U	-	0.066 J
Methyl cyclohexane	mg/kg	-	2.7 J	4 J	4.6 U	-	36000 U	1.5 U	4.1 U	-	1.1 UJ
Methyl tert butyl ether (MTBE)	mg/kg	5900	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	-	0.22 UJ
Methylene chloride	mg/kg	2300	12 U	10 J e	0.95 U	-	3200 J bcdefhij	0.32 U	0.85 U	0.33 U	0.22 UJ
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	0.33 U	-
N-Propylbenzene	mg/kg	10000	-	-	-	-	-	-	-	0.33 U	-
o-Xylene	mg/kg	150	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	150	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	520	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Tetrachloroethene	mg/kg	88	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
Toluene	mg/kg	250	0.76 J	2.8 J	0.21 J	-	430 J defhij	0.13 U	0.34 U	0.18	0.027 J
trans-1,2-Dichloroethene	mg/kg	1400	2.4 U	4.8 U	0.13 J	-	1500 U	0.063 U	0.17 U	0.33 U	0.045 UJ
trans-1,3-Dichloropropene	mg/kg	-	2.4 U	4.8 U	0.19 U	-	1500 U	0.063 U	0.17 U	0.065 U	0.045 UJ
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	6.5 U	-
Trichloroethene	mg/kg	500	64 efi	4.8 U	0.12 J e	-	47000 bcdefhij	0.037 J	0.17 U	0.065 U	1.6 J e
Trichlorofluoromethane (CFC-11)	mg/kg	560	4.9 U	9.7 U	0.38 U	-	3000 U	0.13 U	0.34 U	-	0.089 UJ
Trifluorotrichloroethane (Freon 113)	mg/kg	550	12 U	24 U	0.95 U	-	7500 U	0.32 U	0.85 U	-	0.22 UJ
Vinyl chloride	mg/kg	490	1.9 J ei	9.7 U	2.5 ei	-	3000 U	0.13 U	0.22 J e	0.51 ei	0.089 UJ
Xylenes (total)	mg/kg	150	49 ei	140 ei	1.9 i	-	4500 J defhij	0.63 U	1.7 U	1.02 i	0.088 J
TCLP VOCs											
1,1-Dichloroethene	mg/L		-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L		-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L		-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L		-	-	-	-	-	-	-	-	-
Benzene	mg/L		-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L		-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L		-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L		-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L		-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L		-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L		-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2,4,5-Trichlorophenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2,4,6-Trichlorophenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2,4-Dichlorophenol	mg/kg	1800	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2,4-Dimethylphenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2,4-Dinitrophenol	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
2,4-Dinitrotoluene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U

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PAOC		*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*Screening Levels*	*SB19-12*	*SB19-12*	*SB19-13*	*SB19-13*	*SB19-13*	*SB19-16*	*SB19-16*	*B-11*	*MW19-17*
Sample Depth:			*3-5 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*-*	*0-2 ft BGS*
Sample ID:			*S-17303-112103-DD-239*	*S-17303-112103-DD-240*	*S-17303-112103-DD-236*	*S-17303-112103-DD-237*	*S-17303-112103-DD-238*	*S-17303-111403-DD-213*	*S-17303-111403-DD-214*	*S-17303-040903-DCR-187*	*S-17303-111103-DD-203*
Sample Date:			*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/14/2003*	*11/14/2003*	*04/09/2003*	*11/11/2003*
Sample Type:											
Parameter:	*Units*	*j*									
2,6-Dinitrotoluene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2-Chloronaphthalene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2-Chlorophenol	mg/kg	19000	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2-Methylnaphthalene	mg/kg	-	0.95 J	2.2 J	4.6[i]	4.4[i]	32 J[i]	0.36 U	0.4 U	0.43 U	0.37 U
2-Methylphenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
2-Nitroaniline	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
2-Nitrophenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	0.43 U	-
3,3'-Dichlorobenzidine	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.6 U	1.8 U
3-Nitroaniline	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
4,6-Dinitro-2-methylphenol	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
4-Bromophenyl phenyl ether	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
4-Chloro-3-methylphenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
4-Chloroaniline	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	2.2 U	0.37 U
4-Chlorophenyl phenyl ether	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
4-Methylphenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	16 J[i]	0.36 U	0.4 U	-	0.37 U
4-Nitroaniline	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
4-Nitrophenol	mg/kg	-	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	2.2 U	1.8 U
Acenaphthene	mg/kg	-	3.7 U	7.3 U	0.22 J	0.2 J	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Acenaphthylene	mg/kg	-	3.7 U	7.3 U	1.8 U	0.43 J	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Acetophenone	mg/kg	1100	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Anthracene	mg/kg	-	3.7 U	7.3 U	0.49 J	0.48 J	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Atrazine	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.2 U	0.37 U
Benzaldehyde	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.078 J	0.4 U	0.43 U	0.37 U
Benzo(a)anthracene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.037 J
Benzo(a)pyrene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.044 J
Benzo(b)fluoranthene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.043 J
Benzo(g,h,i)perylene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.033 J
Benzo(k)fluoranthene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.033 J
Biphenyl (1,1-Biphenyl)	mg/kg	-	1 J	2 J	0.86 J	0.82 J	24 J	0.36 U	0.4 U	0.43 U	0.37 U
bis(2-Chloroethoxy)methane	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
bis(2-Chloroethyl)ether	mg/kg	2200	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.13 U	0.37 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	10000	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Butyl benzylphthalate (BBP)	mg/kg	310	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Caprolactam	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Carbazole	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Chrysene	mg/kg	-	0.23 J	7.3 U	1.8 U	0.1 J	84 U	0.36 U	0.4 U	0.43 U	0.052 J
Dibenz(a,h)anthracene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Dibenzofuran	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Diethyl phthalate	mg/kg	740	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Dimethyl phthalate	mg/kg	790	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Di-n-butylphthalate (DBP)	mg/kg	760	2.3 J	4 J	0.41 J	0.44 J	320[i]	0.36 U	0.4 U	0.43 U	0.37 U
Di-n-octyl phthalate (DnOP)	mg/kg	140000	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Fluoranthene	mg/kg	-	0.88 J	2 J	0.61 J	0.67 J	21 J[i]	0.36 U	0.4 U	0.43 U	0.08 J
Fluorene	mg/kg	-	1.1 J	2.1 J	0.74 J	0.7 J	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Hexachlorobenzene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Hexachlorobutadiene	mg/kg	350	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Hexachlorocyclopentadiene	mg/kg	720	18 U	35 U	8.9 U	8.8 U	410 U	1.7 U	1.9 U	0.43 U	1.8 U

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YPSILANTI, MICHIGAN

PAOC		*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*Screening Levels*	*SB19-12*	*SB19-12*	*SB19-13*	*SB19-13*	*SB19-13*	*SB19-16*	*SB19-16*	*B-11*	*MW19-17*
Sample Depth:			*3-5 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*-*	*0-2 ft BGS*
Sample ID:			*S-17303-112103-DD-239*	*S-17303-112103-DD-240*	*S-17303-112103-DD-236*	*S-17303-112103-DD-237*	*S-17303-112103-DD-238*	*S-17303-111403-DD-213*	*S-17303-111403-DD-214*	*S-17303-040903-DCR-187*	*S-17303-111103-DD-203*
Sample Date:			*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/14/2003*	*11/14/2003*	*04/09/2003*	*11/11/2003*
Sample Type:											
Parameter:	***Units***	*j*									
Hexachloroethane	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.025 J
Isophorone	mg/kg	2400	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Naphthalene	mg/kg	-	1 J[i]	3.6 J[i]	2[i]	1.9[i]	93[i]	0.36 U	0.4 U	0.43 U	0.37 U
Nitrobenzene	mg/kg	490	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.26 U	0.37 U
N-Nitrosodi-n-propylamine	mg/kg	1500	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
N-Nitrosodiphenylamine	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	0.43 U	0.37 U
Pentachlorophenol	mg/kg	-	3.7 U	7.3 U	1.8 U	1.8 U	84 U	0.36 U	0.4 U	1 U	0.37 U
Phenanthrene	mg/kg	-	0.94 J	2.3 J[i]	1.1 J	1.1 J	25 J[i]	0.36 U	0.4 U	0.43 U	0.037 J
Phenol	mg/kg	12000	3.7 U	7.3 U	1.8 U	1.8 U	49 J[i]	0.36 U	0.4 U	0.43 U	0.37 U
Pyrene	mg/kg	-	3.7 U	0.43 J	0.19 J	0.21 J	84 U	0.36 U	0.4 U	0.43 U	0.077 J
Pyridine	mg/kg	37	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	3060	4300	3450	3400	13100[e]	3010	2450	-	5300
Antimony	mg/kg	-	1.4	2.3	4.0	18.2[e]	449[ei]	0.54 U	0.31 J	-	0.57 UJ
Arsenic	mg/kg	-	1.8	2.9	2.6	2.6	4.0	1.5	5.8	-	3.0
Barium	mg/kg	-	16.7	41.9	203	225	454	39.1	9.9	-	37.9
Beryllium	mg/kg	-	0.23 U	0.22 U	0.22 U	0.22 U	0.091 J	0.22 U	0.24 U	-	0.048 J
Cadmium	mg/kg	-	0.50	0.70	8.3[ei]	1.4	68.3[ei]	1.6	0.073	-	0.18
Calcium	mg/kg	-	1030	11300	10800	17000	3080	1040	10700	-	46700
Chromium	mg/kg	-	35.8[ei]	214[ei]	28.9[i]	28.2[i]	6190[egi]	8.2[i]	5.4[i]	-	10[i]
Cobalt	mg/kg	-	3.6	7.0 J[ei]	5.0	3.6	67.8[ei]	1.8	2.6	-	5.0
Copper	mg/kg	-	12.0	8.6 J	12.5	12.6	373[i]	2.3	5.8	-	11.5
Iron	mg/kg	-	5030	6640	5440	5030	10700	4630	7240	-	10800
Lead	mg/kg	-	24.1	32.3	50.3	32.6	2540[de]	18.5	2.8	-	8.3
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	809	4400	6340	8630	719	471	2720	-	9940
Manganese	mg/kg	-	44.9	112	89.0	89.2	120	199	104	-	285
Mercury	mg/kg	-	0.11 U	0.030 J	0.029 J	0.024 J	2.6[ei]	0.11 U	0.12 U	-	0.027 J
Nickel	mg/kg	-	6.6	8.1 J	6.7	5.6	39.1	3.0	6.6	-	11.9
Potassium	mg/kg	-	238 J	340 J	251 J	256 J	1830	116 J	285 J	-	872
Selenium	mg/kg	-	0.23 U	0.22 U	2.5[i]	0.32	0.25 J	0.83[i]	0.094 J	-	0.23 U
Silver	mg/kg	-	0.57 U	0.55 U	0.55 U	0.55 U	69.4[ei]	0.54 U	0.60 U	-	0.57 U
Sodium	mg/kg	-	247 U	212 U	305 U	296 U	1060	108 U	120 U	-	70.5 J
Thallium	mg/kg	-	0.052 J	0.15	0.038 J	0.049 J	6.4 U	0.54 U	0.60 U	-	0.13
Vanadium	mg/kg	-	8.6	11.1	7.9	7.6	12.5	7.0	8.4	-	13.0
Zinc	mg/kg	-	91.6	545 J[i]	181	165	10900[ei]	28.5	18.4	-	34.1
Cyanide (total)	mg/kg	-	0.095 J	0.22 U	0.18 J[i]	0.093 J	4.5[ei]	1.2[i]	0.33[i]	-	0.23 U
TCLP Metals											
Arsenic	mg/L		-	-	-	-	-	-	-	-	-
Barium	mg/L		-	-	-	-	-	-	-	-	-
Cadmium	mg/L		-	-	-	-	-	-	-	-	-

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PAOC		*Soil Saturation Concentration*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*Screening Levels*	*SB19-12*	*SB19-12*	*SB19-13*	*SB19-13*	*SB19-13*	*SB19-16*	*SB19-16*	*B-11*	*MW19-17*
Sample Depth:			*3-5 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*-*	*0-2 ft BGS*
Sample ID:			*S-17303-112103-DD-239*	*S-17303-112103-DD-240*	*S-17303-112103-DD-236*	*S-17303-112103-DD-237*	*S-17303-112103-DD-238*	*S-17303-111403-DD-213*	*S-17303-111403-DD-214*	*S-17303-040903-DCR-187*	*S-17303-111103-DD-203*
Sample Date:			*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/21/2003*	*11/14/2003*	*11/14/2003*	*04/09/2003*	*11/11/2003*
Sample Type:											
Parameter:	*Units*	*j*									
Chromium	mg/L		-	-	-	-	-	-	-	-	-
Copper	mg/L		-	-	-	-	-	-	-	-	-
Lead	mg/L		-	-	-	-	-	-	-	-	-
Mercury	mg/L		-	-	-	-	-	-	-	-	-
Selenium	mg/L		-	-	-	-	-	-	-	-	-
Silver	mg/L		-	-	-	-	-	-	-	-	-
Zinc	mg/L		-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.37 U
Aroclor-12(PCB-1221)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.37 U
Aroclor-12(PCB-1232)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.37 U
Aroclor-12(PCB-1242)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.37 U
Aroclor-12(PCB-1248)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.076 J
Aroclor-12(PCB-1254)	mg/kg	-	0.75 U	0.37 U	0.37 U	0.36 U	2.1 U	0.36 U	0.4 U	8.6 U	0.37 U
Aroclor-12(PCB-1260)	mg/kg	-	7	3	0.19 J	0.28 J	11	0.36 U	0.4 U	10	0.076 J
Total PCBs	mg/kg	-	7	3	0.19 J	0.28 J	11	0.36 U	0.4 U	10	0.152 J
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	2300	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	35	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW19-17*	*MW19-18*	*MW19-18*	*MW18-01*	*MW18-01*	*MW18-02*	*MW18-02*	*MW18-03*	*MW18-03*	*PZ18-73*
Sample Depth:		*8-10 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*-*	*-*	*0-2 ft BGS*
Sample ID:		*S-17303-111103-DD-204*	*S-17303-111103-DD-200*	*S-17303-111103-DD-201*	*S-17303-051704-DCR-317*	*S-17303-051704-DCR-318*	*S-17303-051704-DCR-315*	*S-17303-051704-DCR-316*	*S-17303-090804-BW-587*	*S-17303-090804-BW-588*	*S-17303-052404-DCR-344*
Sample Date:		*11/11/2003*	*11/11/2003*	*11/11/2003*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*09/09/2004*	*09/09/2004*	*05/24/2004*
Sample Type:										*Duplicate*	
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,1,2,2-Tetrachloroethane	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
1,1,2-Trichloroethane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,1-Dichloroethane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,1-Dichloroethene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	3.8 U	0.22 U	0.77 U	0.12 J	0.23 U	0.11 J	0.25 U	-	-	0.28 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
1,2-Dichlorobenzene	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
1,2-Dichloroethane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	11 U	0.65 U	2.3 U	0.76 U	0.7 U	0.87 U	0.76 U	-	-	0.85 U
2-Hexanone	mg/kg	38 U	2.2 U	7.7 U	2.5 U	2.3 U	2.9 U	2.5 U	-	-	2.8 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	38 U	2.2 U	7.7 U	2.5 U	2.3 U	2.9 U	2.5 U	-	-	2.8 U
Acetone	mg/kg	11 U	0.15 J	2.3 U	0.76 U	0.7 U	0.87 U	0.76 U	-	-	0.85 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
Bromoform	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
Bromomethane (Methyl bromide)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Carbon disulfide	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Carbon tetrachloride	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Chlorobenzene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Chloroform (Trichloromethane)	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Chloromethane (Methyl chloride)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
cis-1,2-Dichloroethene	mg/kg	**6.2[e]**	0.044 U	0.29	0.067	0.15	0.058 U	0.05 U	-	-	0.057 U
cis-1,3-Dichloropropene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Cyclohexane	mg/kg	18 U	1 U	3.7 U	1.2 U	1.1 U	1.4 U	1.2 U	-	-	1.4 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW19-17*	*MW19-18*	*MW19-18*	*MW18-01*	*MW18-01*	*MW18-02*	*MW18-02*	*MW18-03*	*MW18-03*	*PZ18-73*
Sample Depth:		*8-10 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*-*	*-*	*0-2 ft BGS*
Sample ID:		*S-17303-111103-DD-204*	*S-17303-111103-DD-200*	*S-17303-111103-DD-201*	*S-17303-051704-DCR-317*	*S-17303-051704-DCR-318*	*S-17303-051704-DCR-315*	*S-17303-051704-DCR-316*	*S-17303-090804-BW-587*	*S-17303-090804-BW-588*	*S-17303-052404-DCR-344*
Sample Date:		*11/11/2003*	*11/11/2003*	*11/11/2003*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*09/09/2004*	*09/09/2004*	*05/24/2004*
Sample Type:										*Duplicate*	
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Methyl acetate	mg/kg	18 U	0.059 J	3.7 U	1.2 U	1.1 U	1.4 U	1.2 U	-	-	0.11 J
Methyl cyclohexane	mg/kg	18 U	1 U	3.7 U	1.2 U	1.1 U	1.4 U	1.2 U	-	-	1.4 U
Methyl tert butyl ether (MTBE)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Methylene chloride	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Tetrachloroethene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
Toluene	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
trans-1,2-Dichloroethene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
trans-1,3-Dichloropropene	mg/kg	0.76 U	0.044 U	0.15 U	0.05 U	0.047 U	0.058 U	0.05 U	-	-	0.057 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**22[ei]**	**1.3[e]**	**4.2[ei]**	**0.39[e]**	**0.51[e]**	0.076	**0.22[e]**	-	-	**0.18[e]**
Trichlorofluoromethane (CFC-11)	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	3.8 U	0.22 U	0.77 U	0.25 U	0.23 U	0.29 U	0.25 U	-	-	0.28 U
Vinyl chloride	mg/kg	1.5 U	0.087 U	0.31 U	0.1 U	0.094 U	0.12 U	0.1 U	-	-	0.11 U
Xylenes (total)	mg/kg	7.6 U	0.44 U	1.5 U	0.055 J	0.47 U	0.58 U	0.5 U	-	-	0.57 U
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	1 U	1 U	-
Benzene	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	**4.8[ei]**	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	0.1 U	0.1 U	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2,4,5-Trichlorophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2,4,6-Trichlorophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2,4-Dichlorophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2,4-Dimethylphenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2,4-Dinitrophenol	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
2,4-Dinitrotoluene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW19-17*	*MW19-18*	*MW19-18*	*MW18-01*	*MW18-01*	*MW18-02*	*MW18-02*	*MW18-03*	*MW18-03*	*PZ18-73*
Sample Depth:		*8-10 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*-*	*-*	*0-2 ft BGS*
Sample ID:		*S-17303-111103-DD-204*	*S-17303-111103-DD-200*	*S-17303-111103-DD-201*	*S-17303-051704-DCR-317*	*S-17303-051704-DCR-318*	*S-17303-051704-DCR-315*	*S-17303-051704-DCR-316*	*S-17303-090804-BW-587*	*S-17303-090804-BW-588*	*S-17303-052404-DCR-344*
Sample Date:		*11/11/2003*	*11/11/2003*	*11/11/2003*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*09/09/2004*	*09/09/2004*	*05/24/2004*
Sample Type:										*Duplicate*	
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2-Chloronaphthalene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2-Chlorophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2-Methylnaphthalene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2-Methylphenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
2-Nitroaniline	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
2-Nitrophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
3-Nitroaniline	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
4,6-Dinitro-2-methylphenol	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
4-Bromophenyl phenyl ether	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
4-Chloro-3-methylphenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
4-Chloroaniline	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
4-Chlorophenyl phenyl ether	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
4-Methylphenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
4-Nitroaniline	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
4-Nitrophenol	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U
Acenaphthene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Acenaphthylene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Acetophenone	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Anthracene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Atrazine	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzaldehyde	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzo(a)anthracene	mg/kg	0.37 U	0.02 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzo(a)pyrene	mg/kg	0.37 U	0.024 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzo(b)fluoranthene	mg/kg	0.37 U	0.034 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzo(g,h,i)perylene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Benzo(k)fluoranthene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
bis(2-Chloroethoxy)methane	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
bis(2-Chloroethyl)ether	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Butyl benzylphthalate (BBP)	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Caprolactam	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Carbazole	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Chrysene	mg/kg	0.37 U	0.032 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Dibenz(a,h)anthracene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Dibenzofuran	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Diethyl phthalate	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Dimethyl phthalate	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Di-n-butylphthalate (DBP)	mg/kg	0.37 U	0.026 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Fluoranthene	mg/kg	0.37 U	0.05 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Fluorene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Hexachlorobenzene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Hexachlorobutadiene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Hexachlorocyclopentadiene	mg/kg	1.8 U	1.8 U	1.8 U	39 U	1.8 U	9.3 U	1.9 U	-	-	1.9 U

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW19-17*	*MW19-18*	*MW19-18*	*MW18-01*	*MW18-01*	*MW18-02*	*MW18-02*	*MW18-03*	*MW18-03*	*PZ18-73*
Sample Depth:		*8-10 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*-*	*-*	*0-2 ft BGS*
Sample ID:		*S-17303-111103-DD-204*	*S-17303-111103-DD-200*	*S-17303-111103-DD-201*	*S-17303-051704-DCR-317*	*S-17303-051704-DCR-318*	*S-17303-051704-DCR-315*	*S-17303-051704-DCR-316*	*S-17303-090804-BW-587*	*S-17303-090804-BW-588*	*S-17303-052404-DCR-344*
Sample Date:		*11/11/2003*	*11/11/2003*	*11/11/2003*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*09/09/2004*	*09/09/2004*	*05/24/2004*
Sample Type:										*Duplicate*	
Parameter:	*Units*										
Hexachloroethane	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Isophorone	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Naphthalene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Nitrobenzene	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
N-Nitrosodi-n-propylamine	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
N-Nitrosodiphenylamine	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Pentachlorophenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Phenanthrene	mg/kg	0.37 U	0.027 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Phenol	mg/kg	0.37 U	0.37 U	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Pyrene	mg/kg	0.37 U	0.039 J	0.38 U	8 U	0.37 U	1.9 U	0.38 U	-	-	0.38 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	3680	4310	3560	**7140[e]**	4620	5620	3070	-	-	4180
Antimony	mg/kg	0.57 UJ	0.81 J	0.24 J	0.61 UJ	0.57 UJ	0.35 J	0.58 UJ	-	-	3.3 J
Arsenic	mg/kg	1.3	4.4	1.3	5.3	2.8	3.6	3.0	-	-	2.2
Barium	mg/kg	16.6	32.3	16.7	**164**	18.1	**136**	10.4	-	-	35.5
Beryllium	mg/kg	0.23 U	0.032 J	0.034 J	0.44	0.26	0.34	0.19 J	-	-	0.098 J
Cadmium	mg/kg	0.16	0.24	0.22	**3.0**	0.22	**1.5**	0.077	-	-	0.64
Calcium	mg/kg	43800	42200	28100	32300 J	28000 J	15200 J	1040 J	-	-	995
Chromium	mg/kg	**7.5[i]**	**10.8[i]**	**7.1[i]**	**53.1 J[ei]**	**8.6 J[i]**	**49.0 J[ei]**	**6.5 J[i]**	-	-	**18.6 J[i]**
Cobalt	mg/kg	3.9	4.4	4.2	5.0	4.5	4.0	2.7	-	-	2.3
Copper	mg/kg	9.1	11.7	10.1	16.7	10.8	15.2	9.9	-	-	5.1
Iron	mg/kg	7420	9570	8460	11600	10100	8150	7490	-	-	5260
Lead	mg/kg	4.2	10.7	4.5	**52.9 J**	5.3 J	**34.8 J**	4.0 J	-	-	**24.5 J**
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	10800	9440	6180	6370	7610	2190	783	-	-	674
Manganese	mg/kg	153	251	406	301 J	294 J	109 J	113 J	-	-	98.2 J
Mercury	mg/kg	0.11 U	0.026 J	0.11 U	0.079 J	0.0067 J	0.061 J	0.0097 J	-	-	0.030 J
Nickel	mg/kg	9.8	11.0	10.7	13.1	12.3	9.9	9.3	-	-	4.4
Potassium	mg/kg	575	724	472 J	814	815	510 J	351 J	-	-	205 J
Selenium	mg/kg	0.23 U	0.23 U	0.23 U	**1.3[i]**	0.23 U	**0.89[i]**	0.16 J	-	-	0.25
Silver	mg/kg	0.57 U	0.57 U	0.57 U	0.87	0.57 U	0.66	0.58 U	-	-	0.58 U
Sodium	mg/kg	86.0 J	51.5 J	43.9 J	121 U	99.0 J	117 U	116 U	-	-	116 U
Thallium	mg/kg	0.11	0.22	0.14	0.36 U	0.16 U	0.23 U	0.12 U	-	-	0.058 J
Vanadium	mg/kg	11.3	12.2	10.2	19.9	13.4	16.4	11.6	-	-	9.1
Zinc	mg/kg	27.8	36.7	27.8	145 J	32.1 J	82.1 J	23.4 J	-	-	47.9 J
Cyanide (total)	mg/kg	0.23 U	0.23 U	0.23 U	**2.6[i]**	0.23 U	1.1 U	0.23 U	-	-	0.23 U
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	0.13	0.12	-
Barium	mg/L	-	-	-	-	-	-	-	0.39	1.00	-
Cadmium	mg/L	-	-	-	-	-	-	-	0.011	0.005 U	-

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW19-17*	*MW19-18*	*MW19-18*	*MW18-01*	*MW18-01*	*MW18-02*	*MW18-02*	*MW18-03*	*MW18-03*	*PZ18-73*
Sample Depth:		*8-10 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*0-2 ft BGS*	*3-5 ft BGS*	*-*	*-*	*0-2 ft BGS*
Sample ID:		*S-17303-111103-DD-204*	*S-17303-111103-DD-200*	*S-17303-111103-DD-201*	*S-17303-051704-DCR-317*	*S-17303-051704-DCR-318*	*S-17303-051704-DCR-315*	*S-17303-051704-DCR-316*	*S-17303-090804-BW-587*	*S-17303-090804-BW-588*	*S-17303-052404-DCR-344*
Sample Date:		*11/11/2003*	*11/11/2003*	*11/11/2003*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*05/17/2004*	*09/09/2004*	*09/09/2004*	*05/24/2004*
Sample Type:										*Duplicate*	
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	0.05 U	0.05 U	-
Copper	mg/L	-	-	-	-	-	-	-	0.05 U	0.05 U	-
Lead	mg/L	-	-	-	-	-	-	-	0.15	0.03 U	-
Mercury	mg/L	-	-	-	-	-	-	-	0.0002 U	0.0002 U	-
Selenium	mg/L	-	-	-	-	-	-	-	0.05 U	0.05 U	-
Silver	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U	-
Zinc	mg/L	-	-	-	-	-	-	-	0.52	0.12	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.37 U	0.37 U	0.38 U	0.4 U	0.37 U	0.39 U	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1221)	mg/kg	0.37 U	0.37 U	0.38 U	0.4 U	0.37 U	0.39 U	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1232)	mg/kg	0.37 U	0.37 U	0.38 U	0.4 U	0.37 U	0.39 U	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1242)	mg/kg	0.37 U	0.37 U	0.38 U	0.4 U	0.37 U	0.39 U	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1248)	mg/kg	0.37 U	0.37 U	0.38 U	1.9	0.37 U	0.39 U	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1254)	mg/kg	0.37 U	0.053 J	0.38 U	0.4 U	0.37 U	1.6	0.38 U	100 U	6 U	0.38 U
Aroclor-12(PCB-1260)	mg/kg	0.37 U	0.37 U	0.38 U	1.3	0.37 U	0.39 U	0.38 U	**648**[d]	**44**[d]	0.12 J
Total PCBs	mg/kg	0.37 U	0.053 J	0.38 U	3.2	0.37 U	1.6	0.38 U	**648**[d]	**44**[d]	0.12 J
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-73*	*PZ18-87*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-97*	*PZ18-97*	*PZ18-102*	*PZ18-102*	*PZ18-126*
Sample Depth:		*5-7 ft BGS*	*0-2 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*8-8 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0.8-0.8 ft BGS*	*6-6 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-345*	*S-17303-082404-BW-413*	*S-17303-082504-BW-440*	*S-17303-082504-BW-441*	*S-17303-082504-BW-442*	*S-17303-082504-BW-443*	*S-17303-082504-BW-444*	*S-17303-082504-BW-453*	*S-17303-082504-BW-454*	*S-17303-090204-BW-563*
Sample Date:		*05/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	1 U	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	3 U	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	10 U	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	10 U	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	3 U	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**6[e]**	**7.45[e]**	0.08	0.04 J	**630[bcefi]**	**51.3[efi]**	0.33	**229[cefi]**	0.03 J	**368[cefi]**
cis-1,3-Dichloropropene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	4.9 U	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-73*	*PZ18-87*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-97*	*PZ18-97*	*PZ18-102*	*PZ18-102*	*PZ18-126*
Sample Depth:		*5-7 ft BGS*	*0-2 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*8-8 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0.8-0.8 ft BGS*	*6-6 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-345*	*S-17303-082404-BW-413*	*S-17303-082504-BW-440*	*S-17303-082504-BW-441*	*S-17303-082504-BW-442*	*S-17303-082504-BW-443*	*S-17303-082504-BW-444*	*S-17303-082504-BW-453*	*S-17303-082504-BW-454*	*S-17303-090204-BW-563*
Sample Date:		*05/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.2 U	0.05 U	0.05 U	0.05 U	30[ei]	0.5 U	0.05 U	5 U	0.05 U	14[ei]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	4.9 U	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	4.9 U	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1 U	0.3 U	0.3 U	0.3 U	50 U	3 U	0.3 U	30 U	0.3 U	30 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	0.05 U	0.05 U	0.05 U	50[e]	0.5 U	0.05 U	5 U	0.05 U	25[e]
p-Xylene	mg/kg	-	0.1 U	0.1 U	0.1 U	150[e]	1 U	0.1 U	10 U	0.1 U	80[e]
Styrene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.41 U	0.02 J	0.05 U	0.05 U	90[ei]	0.2 J	0.05 U	2 J	0.05 U	15[i]
trans-1,2-Dichloroethene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	0.2 U	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	1.8[e]	0.06	0.12[e]	0.08	10 U	3.2[e]	0.03 J	5 U	0.05 U	19[ei]
Trichlorofluoromethane (CFC-11)	mg/kg	0.41 U	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	1 U	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.41 U	0.44[ei]	0.05 U	0.05 U	80[cdefhi]	3.0[efi]	0.05 U	11[efi]	0.05 U	5 U
Xylenes (total)	mg/kg	2 U	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-73*	*PAOC 18 PZ18-87*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-97*	*PZ18-97*	*PZ18-102*	*PZ18-102*	*PZ18-126*
Sample Depth:		*5-7 ft BGS*	*0-2 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*8-8 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0.8-0.8 ft BGS*	*6-6 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-345*	*S-17303-082404-BW-413*	*S-17303-082504-BW-440*	*S-17303-082504-BW-441*	*S-17303-082504-BW-442*	*S-17303-082504-BW-443*	*S-17303-082504-BW-444*	*S-17303-082504-BW-453*	*S-17303-082504-BW-454*	*S-17303-090204-BW-563*
Sample Date:		*05/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	1.9 U	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-73*	*PZ18-87*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-97*	*PZ18-97*	*PZ18-102*	*PZ18-102*	*PZ18-126*
Sample Depth:		*5-7 ft BGS*	*0-2 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*8-8 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0.8-0.8 ft BGS*	*6-6 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-345*	*S-17303-082404-BW-413*	*S-17303-082504-BW-440*	*S-17303-082504-BW-441*	*S-17303-082504-BW-442*	*S-17303-082504-BW-443*	*S-17303-082504-BW-444*	*S-17303-082504-BW-453*	*S-17303-082504-BW-454*	*S-17303-090204-BW-563*
Sample Date:		*05/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.38 U	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	1300	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	0.58 UJ	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	4.9	-	-	-	-	-	-	-	-	-
Barium	mg/kg	7.9	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	0.041 J	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	0.12	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	26000	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	**3.6 J[i]**	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	2.7	-	-	-	-	-	-	-	-	-
Copper	mg/kg	6.9	-	-	-	-	-	-	-	-	-
Iron	mg/kg	10400	-	-	-	-	-	-	-	-	-
Lead	mg/kg	1.6 J	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	3620	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	210 J	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	0.0069 J	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	5.6	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	203 J	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.13 J	-	-	-	-	-	-	-	-	-
Silver	mg/kg	0.58 U	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	116 U	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	0.038 J	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	6.9	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	18.4 J	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	0.23 U	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-73*	*PZ18-87*	*PZ18-96*	*PZ18-96*	*PZ18-96*	*PZ18-97*	*PZ18-97*	*PZ18-102*	*PZ18-102*	*PZ18-126*
Sample Depth:		*5-7 ft BGS*	*0-2 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*8-8 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0.8-0.8 ft BGS*	*6-6 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-345*	*S-17303-082404-BW-413*	*S-17303-082504-BW-440*	*S-17303-082504-BW-441*	*S-17303-082504-BW-442*	*S-17303-082504-BW-443*	*S-17303-082504-BW-444*	*S-17303-082504-BW-453*	*S-17303-082504-BW-454*	*S-17303-090204-BW-563*
Sample Date:		*05/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1221)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1232)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1242)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1248)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1254)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	10 U
Aroclor-12(PCB-1260)	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.8	0.33 U	0.33 U	0.01 J	0.33 U	82[d]
Total PCBs	mg/kg	0.38 U	0.33 U	0.33 U	0.33 U	0.8	0.33 U	0.33 U	0.01 J	0.33 U	82[d]
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-126*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*
Sample Depth:		*12.5-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*
Sample ID:		*S-17303-090204-BW-564*	*S-17303-090204-BW-569*	*S-17303-090204-BW-570*	*S-17303-090204-BW-571*	*S-17303-090204-BW-572*	*S-17303-090204-BW-574*	*S-17303-090204-BW-575*	*S-17303-090204-BW-576*	*S-17303-090204-BW-577*	*S-17303-090204-BW-578*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	96[efi]	300[cefi]	565[bcefi]	39.2[ei]	0.02 J	18.4[ei]	64.3[efi]	20[ei]	23[ei]	0.35
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-126*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*
Sample Depth:		*12.5-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*
Sample ID:		*S-17303-090204-BW-564*	*S-17303-090204-BW-569*	*S-17303-090204-BW-570*	*S-17303-090204-BW-571*	*S-17303-090204-BW-572*	*S-17303-090204-BW-574*	*S-17303-090204-BW-575*	*S-17303-090204-BW-576*	*S-17303-090204-BW-577*	*S-17303-090204-BW-578*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	5 U	36 J[ei]	17[ei]	0.5 U	0.05 U	0.5 U	2.6[ei]	40[ei]	47[ei]	0.03 J
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	30 U	500 U	30 U	3 U	0.3 U	3 U	3 U	50 U	30 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	5 U	57 J[e]	32[e]	0.5 U	0.05 U	0.2 J	7.3[e]	60[e]	27[e]	0.03 J
p-Xylene	mg/kg	3 J	200[defhj]	100[e]	0.9 J	0.1 U	0.4 J	17[e]	310[defhj]	330[defhj]	0.06 J
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	2 J	54 J[ei]	11[i]	0.5 U	0.05 U	0.3 J	1.6	20[ei]	22[ei]	0.04 J
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	583[bcdefhij]	14700[bcdefhij]	867[bcdefhij]	7.0[ei]	0.23[e]	13.1[ei]	36.3[ei]	7 J[ei]	2 J[e]	0.04 J
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	5 U	100 U	5 U	1.8[ei]	2.85[efi]	0.5 U	0.5 U	10 U	13[efi]	3.28[efi]
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-126*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*
Sample Depth:		*12.5-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*
Sample ID:		*S-17303-090204-BW-564*	*S-17303-090204-BW-569*	*S-17303-090204-BW-570*	*S-17303-090204-BW-571*	*S-17303-090204-BW-572*	*S-17303-090204-BW-574*	*S-17303-090204-BW-575*	*S-17303-090204-BW-576*	*S-17303-090204-BW-577*	*S-17303-090204-BW-578*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-126*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*
Sample Depth:		*12.5-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*
Sample ID:		*S-17303-090204-BW-564*	*S-17303-090204-BW-569*	*S-17303-090204-BW-570*	*S-17303-090204-BW-571*	*S-17303-090204-BW-572*	*S-17303-090204-BW-574*	*S-17303-090204-BW-575*	*S-17303-090204-BW-576*	*S-17303-090204-BW-577*	*S-17303-090204-BW-578*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-126*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-127*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*	*PZ18-128*
Sample Depth:		*12.5-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*
Sample ID:		*S-17303-090204-BW-564*	*S-17303-090204-BW-569*	*S-17303-090204-BW-570*	*S-17303-090204-BW-571*	*S-17303-090204-BW-572*	*S-17303-090204-BW-574*	*S-17303-090204-BW-575*	*S-17303-090204-BW-576*	*S-17303-090204-BW-577*	*S-17303-090204-BW-578*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	1 U	25 U	10 U	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	11.5	**158[d]**	**110[d]**	**116[d]**	0.1 J	0.07 J	4.8	0.4	1	2
Total PCBs	mg/kg	11.5	**158[d]**	**110[d]**	**116[d]**	0.1 J	0.07 J	4.8	0.4	1	2
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-128*	*PZ18-128*	*SB18-61A*	*SB18-61A*	*SB18-61A*	*SB18-62A*	*SB18-65*	*SB18-65*	*SB18-66*	*SB18-66*
Sample Depth:		*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.2 ft BGS*	*2-2 ft BGS*	*6-6 ft BGS*	*0-2.5 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-090204-BW-579*	*S-17303-090204-BW-580*	*S-17303-082304-BW-402*	*S-17303-083104-BW-515*	*S-17303-083104-BW-516*	*S-17303-082304-BW-401*	*S-17303-051904-DCR-339*	*S-17303-051904-DCR-340*	*S-17303-051904-DCR-337*	*S-17303-051904-DCR-338*
Sample Date:		*09/02/2004*	*09/02/2004*	*08/23/2004*	*08/31/2004*	*08/31/2004*	*08/23/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	4.6 U	7.2 U	0.77 U	7.5 U
2-Hexanone	mg/kg	-	-	-	-	-	-	15 U	24 U	2.6 U	25 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	15 U	24 U	2.6 U	25 U
Acetone	mg/kg	-	-	-	-	-	-	4.6 U	7.2 U	0.77 U	7.5 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.25 J[e]
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
Bromoform	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
Carbon disulfide	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Chlorobenzene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
cis-1,2-Dichloroethene	mg/kg	0.14	0.05 U	46[efi]	265[efi]	0.05 U	0.05 U	0.19 J	0.6	0.027 J	0.5 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Cyclohexane	mg/kg	-	-	-	-	-	-	7.4 U	12 U	1.2 U	8.2 J
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-128*	*PZ18-128*	*SB18-61A*	*SB18-61A*	*SB18-61A*	*SB18-62A*	*SB18-65*	*SB18-65*	*SB18-66*	*SB18-66*
Sample Depth:		*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.2 ft BGS*	*2-2 ft BGS*	*6-6 ft BGS*	*0-2.5 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-090204-BW-579*	*S-17303-090204-BW-580*	*S-17303-082304-BW-402*	*S-17303-083104-BW-515*	*S-17303-083104-BW-516*	*S-17303-082304-BW-401*	*S-17303-051904-DCR-339*	*S-17303-051904-DCR-340*	*S-17303-051904-DCR-337*	*S-17303-051904-DCR-338*
Sample Date:		*09/02/2004*	*09/02/2004*	*08/23/2004*	*08/31/2004*	*08/31/2004*	*08/23/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.04 J	0.05 U	**0.8 J[i]**	5 U	0.05 U	0.05 U	0.31 U	0.48 U	0.051 U	**18[ei]**
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	**13[i]**
Methyl acetate	mg/kg	-	-	-	-	-	-	7.4 U	12 U	1.2 U	12 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	7.4 U	12 U	1.2 U	24
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
Methylene chloride	mg/kg	0.3 U	0.3 U	5 U	30 U	0.3 U	0.3 U	**0.36 J[e]**	**0.6 J[e]**	0.26 U	2.5 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.07	0.05 U	1	5 U	0.05 U	0.05 U	-	-	-	-
p-Xylene	mg/kg	0.10 J	0.1 U	3	10 U	0.1 U	0.1 U	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Tetrachloroethene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
Toluene	mg/kg	0.04 J	0.05 U	2	5 U	0.05 U	0.05 U	0.62 U	0.96 U	0.1 U	1.4
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	0.31 U	0.48 U	0.051 U	0.5 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.07	0.02 J	**0.2 J[e]**	5 U	0.05 U	0.05 U	**11[ei]**	**19[ei]**	**0.24[e]**	**0.24 J[e]**
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	0.62 U	0.96 U	0.1 U	1 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	1.5 U	2.4 U	0.26 U	2.5 U
Vinyl chloride	mg/kg	**4.61[efi]**	0.05 U	**18[efi]**	**36[cdefhi]**	0.05 U	0.05 U	0.62 U	0.96 U	0.1 U	**0.85 J[ei]**
Xylenes (total)	mg/kg	-	-	-	-	-	-	3.1 U	4.8 U	0.51 U	**16[ei]**
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-128*	*PZ18-128*	*SB18-61A*	*SB18-61A*	*SB18-61A*	*SB18-62A*	*SB18-65*	*SB18-65*	*SB18-66*	*SB18-66*
Sample Depth:		*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.2 ft BGS*	*2-2 ft BGS*	*6-6 ft BGS*	*0-2.5 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-090204-BW-579*	*S-17303-090204-BW-580*	*S-17303-082304-BW-402*	*S-17303-083104-BW-515*	*S-17303-083104-BW-516*	*S-17303-082304-BW-401*	*S-17303-051904-DCR-339*	*S-17303-051904-DCR-340*	*S-17303-051904-DCR-337*	*S-17303-051904-DCR-338*
Sample Date:		*09/02/2004*	*09/02/2004*	*08/23/2004*	*08/31/2004*	*08/31/2004*	*08/23/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2-Chlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.12 J	12[1]
2-Methylphenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
2-Nitrophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
4-Methylphenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U
Acenaphthene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	1.3 J
Acenaphthylene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Acetophenone	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Anthracene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.086 J	1.3 J
Atrazine	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	0.029 J	0.37 U	0.36 U	7.9 U
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.35 J	0.79 J
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	0.041 J	0.37 U	0.35 J	0.54 J
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	0.067 J	0.37 U	0.47	0.74 J
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	0.1 J	0.37 U	0.25 J	7.9 U
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.19 J	7.9 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	1.3 J
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.033 J	7.9 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Caprolactam	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Carbazole	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.03 J	0.48 J
Chrysene	mg/kg	-	-	-	-	-	-	0.035 J	0.37 U	0.44	1 J
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.079 J	7.9 U
Dibenzofuran	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.037 J	0.96 J
Diethyl phthalate	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	2.5 J
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Fluoranthene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.97	2.9 J
Fluorene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	1.8 J
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	1.8 U	1.8 U	1.7 U	38 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-128*	*PZ18-128*	*SB18-61A*	*SB18-61A*	*SB18-61A*	*SB18-62A*	*SB18-65*	*SB18-65*	*SB18-66*	*SB18-66*
Sample Depth:		*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.2 ft BGS*	*2-2 ft BGS*	*6-6 ft BGS*	*0-2.5 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-090204-BW-579*	*S-17303-090204-BW-580*	*S-17303-082304-BW-402*	*S-17303-083104-BW-515*	*S-17303-083104-BW-516*	*S-17303-082304-BW-401*	*S-17303-051904-DCR-339*	*S-17303-051904-DCR-340*	*S-17303-051904-DCR-337*	*S-17303-051904-DCR-338*
Sample Date:		*09/02/2004*	*09/02/2004*	*08/23/2004*	*08/31/2004*	*08/31/2004*	*08/23/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	0.053 J	0.37 U	0.22 J	7.9 U
Isophorone	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Naphthalene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.06 J	9.3 [i]
Nitrobenzene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Pentachlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Phenanthrene	mg/kg	-	-	-	-	-	-	0.018 J	0.37 U	0.55	5.9 J [i]
Phenol	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.36 U	7.9 U
Pyrene	mg/kg	-	-	-	-	-	-	0.38 U	0.37 U	0.68	1.8 J
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	3960	2440	4350	2600
Antimony	mg/kg	-	-	-	-	-	-	0.57 UJ	0.56 UJ	0.55 UJ	1.5 J
Arsenic	mg/kg	-	-	-	-	-	-	4.1	1.2	1.6	2.7
Barium	mg/kg	-	-	-	-	-	-	42.1 J	11.7 J	37.7 J	418 J
Beryllium	mg/kg	-	-	-	-	-	-	0.18 J	0.098 J	0.13 J	0.099 J
Cadmium	mg/kg	-	-	-	-	-	-	0.63 J	0.075 J	0.17 J	3.6 J
Calcium	mg/kg	-	-	-	-	-	-	50200	42000	46300	4150
Chromium	mg/kg	-	-	-	-	-	-	7.8 J [i]	5.1 J [i]	7.0 J [i]	91.2 J [ei]
Cobalt	mg/kg	-	-	-	-	-	-	4.2	4.3	2.4	6.4
Copper	mg/kg	-	-	-	-	-	-	9.7 J	7.7 J	4.4 J	16.9 J
Iron	mg/kg	-	-	-	-	-	-	8570	4590	6530	5560
Lead	mg/kg	-	-	-	-	-	-	11.1 J	3.1 J	11.6 J	227 J
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	13100	10600	17800	1190
Manganese	mg/kg	-	-	-	-	-	-	233 J	131 J	122 J	56.9 J
Mercury	mg/kg	-	-	-	-	-	-	0.017 J	0.011 J	0.018 J	0.021 J
Nickel	mg/kg	-	-	-	-	-	-	10.3	8.1	5.5	8.2
Potassium	mg/kg	-	-	-	-	-	-	800	427 J	268 J	251 J
Selenium	mg/kg	-	-	-	-	-	-	0.24 J	0.26 J	0.22 UJ	0.86 J [i]
Silver	mg/kg	-	-	-	-	-	-	0.57 U	0.56 U	0.55 U	0.60 U
Sodium	mg/kg	-	-	-	-	-	-	114 U	112 U	109 U	119 U
Thallium	mg/kg	-	-	-	-	-	-	0.19	0.090 J	0.071 J	0.12 U
Vanadium	mg/kg	-	-	-	-	-	-	11.3	8.3	10.5	7.6
Zinc	mg/kg	-	-	-	-	-	-	34.2	19.3	22.1	316
Cyanide (total)	mg/kg	-	-	-	-	-	-	0.23 U	0.22 U	0.22 U	0.24 U
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*PZ18-128*	*PZ18-128*	*SB18-61A*	*SB18-61A*	*SB18-61A*	*SB18-62A*	*SB18-65*	*SB18-65*	*SB18-66*	*SB18-66*
Sample Depth:		*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.2 ft BGS*	*2-2 ft BGS*	*6-6 ft BGS*	*0-2.5 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-090204-BW-579*	*S-17303-090204-BW-580*	*S-17303-082304-BW-402*	*S-17303-083104-BW-515*	*S-17303-083104-BW-516*	*S-17303-082304-BW-401*	*S-17303-051904-DCR-339*	*S-17303-051904-DCR-340*	*S-17303-051904-DCR-337*	*S-17303-051904-DCR-338*
Sample Date:		*09/02/2004*	*09/02/2004*	*08/23/2004*	*08/31/2004*	*08/31/2004*	*08/23/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	2	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	3	0.33 U	0.33 U	0.33 U	0.38 U	0.037 U	0.36 U	0.39 U
Aroclor-12(PCB-1260)	mg/kg	0.9	0.33 U	0.7 J	0.1 J	0.33 U	0.33 U	0.38 U	0.037 U	0.013 J	0.49
Total PCBs	mg/kg	0.9	0.33 U	5.7 J	0.1 J	0.33 U	0.33 U	0.38 U	0.037 U	0.013 J	0.49
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-67*	*SB18-67*	*SB18-68*	*SB18-68*	*SB18-69*	*SB18-69*	*SB18-70*	*SB18-70*	*SB18-70*	*SB18-71*
Sample Depth:		*0-2 ft BGS*	*6-8 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*5-6 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-051904-DCR-335*	*S-17303-051904-DCR-336*	*S-17303-051904-DCR-333*	*S-17303-051904-DCR-334*	*S-17303-051904-DCR-331*	*S-17303-051904-DCR-332*	*S-17303-051904-DCR-328*	*S-17303-051904-DCR-329*	*S-17303-051904-DCR-330*	*S-17303-052404-DCR-348*
Sample Date:		*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
1,1,2,2-Tetrachloroethane	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
1,1,2-Trichloroethane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
1,1-Dichloroethane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
1,1-Dichloroethene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.029 J	0.26 U	0.97 U	5.6 U	2600 U	1 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
1,2-Dichlorobenzene	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
1,2-Dichloroethane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	190 J[bcefi]	0.2 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.79 U	0.89 U	0.79 U	330 U	0.73 U	0.78 U	2.9 U	17 U	7700 U	3.1 U
2-Hexanone	mg/kg	2.6 U	3 U	2.6 U	1100 U	2.4 U	2.6 U	9.7 U	56 U	26000 U	10 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.6 U	3 U	2.6 U	1100 U	2.4 U	2.6 U	9.7 U	56 U	26000 U	10 U
Acetone	mg/kg	0.79 U	0.89 U	0.79 U	330 U	0.73 U	0.78 U	2.9 U	17 U	7700 U	3.1 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
Bromoform	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
Bromomethane (Methyl bromide)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
Carbon disulfide	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
Carbon tetrachloride	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Chlorobenzene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
Chloroform (Trichloromethane)	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Chloromethane (Methyl chloride)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
cis-1,2-Dichloroethene	mg/kg	0.03 J	0.057 J	0.32	660[bcdefhij]	0.049 U	0.052 U	0.19 U	34[ei]	350 J[cefi]	5.6[e]
cis-1,3-Dichloropropene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Cyclohexane	mg/kg	1.3 U	1.4 U	1.3 U	530 U	1.2 U	1.3 U	0.13 J	27 U	12000 U	4.9 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-67*	*SB18-67*	*SB18-68*	*SB18-68*	*SB18-69*	*SB18-69*	*SB18-70*	*SB18-70*	*SB18-70*	*SB18-71*
Sample Depth:		*0-2 ft BGS*	*6-8 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*5-6 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-051904-DCR-335*	*S-17303-051904-DCR-336*	*S-17303-051904-DCR-333*	*S-17303-051904-DCR-334*	*S-17303-051904-DCR-331*	*S-17303-051904-DCR-332*	*S-17303-051904-DCR-328*	*S-17303-051904-DCR-329*	*S-17303-051904-DCR-330*	*S-17303-052404-DCR-348*
Sample Date:		*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.052 U	0.059 U	0.053 U	21 J[ei]	0.049 U	0.052 U	5.4[ei]	1.1 U	330 J[defhij]	0.2 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.26 U	0.3 U	0.26 U	10 J[i]	0.24 U	0.26 U	1.5	5.6 U	2600 U	1 U
Methyl acetate	mg/kg	1.3 U	1.4 U	1.3 U	530 U	1.2 U	1.3 U	4.6 U	27 U	12000 U	4.9 U
Methyl cyclohexane	mg/kg	1.3 U	1.4 U	1.3 U	530 U	1.2 U	1.3 U	1.5 J	27 U	12000 U	4.9 U
Methyl tert butyl ether (MTBE)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
Methylene chloride	mg/kg	0.074 J	0.075 J	0.26 U	30 J[e]	0.24 U	0.26 U	0.27 J[e]	1.5 J[e]	760 J[cefi]	1 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Tetrachloroethene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
Toluene	mg/kg	0.1 U	0.12 U	0.11 U	9.3 J[i]	0.098 U	0.1 U	0.078 J	2.2 U	320 J[defhij]	0.41 U
trans-1,2-Dichloroethene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.53
trans-1,3-Dichloropropene	mg/kg	0.052 U	0.059 U	0.053 U	22 U	0.049 U	0.052 U	0.19 U	1.1 U	510 U	0.2 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.44[e]	1.3[e]	1.6[e]	460[bcefhi]	0.058	0.064	0.19 U	28[ei]	12000[bcdefhij]	1.1[e]
Trichlorofluoromethane (CFC-11)	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.26 U	0.3 U	0.26 U	110 U	0.24 U	0.26 U	0.97 U	5.6 U	2600 U	1 U
Vinyl chloride	mg/kg	0.1 U	0.12 U	0.11 U	44 U	0.098 U	0.1 U	0.39 U	2.2 U	1000 U	0.41 U
Xylenes (total)	mg/kg	0.52 U	0.59 U	0.53 U	140 J[ei]	0.49 U	0.52 U	13[ei]	11 U	2100 J[defhij]	2 U
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2,4,5-Trichlorophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2,4,6-Trichlorophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2,4-Dichlorophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2,4-Dimethylphenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	49 J[ei]	0.42 U
2,4-Dinitrophenol	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
2,4-Dinitrotoluene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-67*	*SB18-67*	*SB18-68*	*SB18-68*	*SB18-69*	*SB18-69*	*SB18-70*	*SB18-70*	*SB18-70*	*SB18-71*
Sample Depth:		*0-2 ft BGS*	*6-8 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*5-6 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-051904-DCR-335*	*S-17303-051904-DCR-336*	*S-17303-051904-DCR-333*	*S-17303-051904-DCR-334*	*S-17303-051904-DCR-331*	*S-17303-051904-DCR-332*	*S-17303-051904-DCR-328*	*S-17303-051904-DCR-329*	*S-17303-051904-DCR-330*	*S-17303-052404-DCR-348*
Sample Date:		*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2-Chloronaphthalene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2-Chlorophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2-Methylnaphthalene	mg/kg	0.35 U	0.38 U	0.031 J	0.061 J	0.35 U	0.37 U	2.3	9.2 U	100 J[1]	0.42 U
2-Methylphenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
2-Nitroaniline	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
2-Nitrophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
3-Nitroaniline	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
4,6-Dinitro-2-methylphenol	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
4-Bromophenyl phenyl ether	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
4-Chloro-3-methylphenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
4-Chloroaniline	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
4-Chlorophenyl phenyl ether	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
4-Methylphenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
4-Nitroaniline	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
4-Nitrophenol	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U
Acenaphthene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.12 J	9.2 U	110 U	0.42 U
Acenaphthylene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Acetophenone	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Anthracene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.14 J	9.2 U	4.6 J	0.42 U
Atrazine	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Benzaldehyde	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Benzo(a)anthracene	mg/kg	0.35 U	0.38 U	0.044 J	0.39 U	0.35 U	0.37 U	0.34 J	9.2 U	110 U	0.42 U
Benzo(a)pyrene	mg/kg	0.35 U	0.38 U	0.06 J	0.39 U	0.35 U	0.37 U	0.42 J	9.2 U	110 U	0.42 U
Benzo(b)fluoranthene	mg/kg	0.016 J	0.38 U	0.087 J	0.39 U	0.35 U	0.37 U	0.63 J	9.2 U	110 U	0.42 U
Benzo(g,h,i)perylene	mg/kg	0.35 U	0.38 U	0.055 J	0.39 U	0.35 U	0.37 U	0.28 J	9.2 U	110 U	0.42 U
Benzo(k)fluoranthene	mg/kg	0.35 U	0.38 U	0.033 J	0.39 U	0.35 U	0.37 U	0.28 J	9.2 U	110 U	0.42 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.12 J	9.2 U	8.8 J	0.42 U
bis(2-Chloroethoxy)methane	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
bis(2-Chloroethyl)ether	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.13 J	0.38 U	0.36 U	0.024 J	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Butyl benzylphthalate (BBP)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Caprolactam	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Carbazole	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Chrysene	mg/kg	0.35 U	0.38 U	0.053 J	0.39 U	0.35 U	0.37 U	0.46 J	0.61 J	110 U	0.42 U
Dibenz(a,h)anthracene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.11 J	9.2 U	110 U	0.42 U
Dibenzofuran	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Diethyl phthalate	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Dimethyl phthalate	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Di-n-butylphthalate (DBP)	mg/kg	0.35 U	0.38 U	0.36 U	0.051 J	0.35 U	0.37 U	1.4 U	9.2 U	10 J	0.42 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Fluoranthene	mg/kg	0.35 U	0.044 J	0.072 J	0.39 U	0.35 U	0.37 U	0.8 J	9.2 U	110 U	0.42 U
Fluorene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.16 J	9.2 U	110 U	0.42 U
Hexachlorobenzene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Hexachlorobutadiene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Hexachlorocyclopentadiene	mg/kg	1.7 U	1.9 U	1.8 U	1.9 U	1.7 U	1.8 U	7 U	44 U	510 U	2 U

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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-67*	*SB18-67*	*SB18-68*	*SB18-68*	*SB18-69*	*SB18-69*	*SB18-70*	*SB18-70*	*SB18-70*	*SB18-71*
Sample Depth:		*0-2 ft BGS*	*6-8 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*5-6 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-051904-DCR-335*	*S-17303-051904-DCR-336*	*S-17303-051904-DCR-333*	*S-17303-051904-DCR-334*	*S-17303-051904-DCR-331*	*S-17303-051904-DCR-332*	*S-17303-051904-DCR-328*	*S-17303-051904-DCR-329*	*S-17303-051904-DCR-330*	*S-17303-052404-DCR-348*
Sample Date:		*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.35 U	0.38 U	0.044 J	0.39 U	0.35 U	0.37 U	0.28 J	9.2 U	110 U	0.42 U
Isophorone	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Naphthalene	mg/kg	0.35 U	0.38 U	0.36 U	0.12 J	0.35 U	0.37 U	1.1 J[i]	9.2 U	120[ei]	0.42 U
Nitrobenzene	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
N-Nitrosodi-n-propylamine	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
N-Nitrosodiphenylamine	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Pentachlorophenol	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Phenanthrene	mg/kg	0.35 U	0.081 J	0.36 U	0.39 U	0.35 U	0.37 U	0.55 J	9.2 U	14 J[i]	0.42 U
Phenol	mg/kg	0.35 U	0.38 U	0.36 U	0.023 J	0.35 U	0.37 U	1.4 U	9.2 U	110 U	0.42 U
Pyrene	mg/kg	0.35 U	0.026 J	0.062 J	0.39 U	0.35 U	0.37 U	0.64 J	9.2 U	110 U	0.42 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	2900	4090	2220	2670	3750	4400	3220	3720	3810	10900[e]
Antimony	mg/kg	0.53 UJ	0.58 UJ	0.55 UJ	0.59 UJ	1.5 J	0.75 J	1.7 J	0.55 UJ	1490 J[dei]	0.63 UJ
Arsenic	mg/kg	2.1	2.1	1.2	2.9	2.3	2.9	1.6	3.1	23.9[ei]	3.3
Barium	mg/kg	20.8 J	13.5 J	7.2 J	11.3 J	32.7 J	39.2 J	479 J	13.4 J	6750 J[ei]	58.2
Beryllium	mg/kg	0.094 J	0.10 J	0.064 J	0.14 J	0.11 J	0.18 J	0.23	0.15 J	0.36	0.51
Cadmium	mg/kg	0.22 J	0.038 J	0.031 J	0.31 J	0.10 J	1.1 J	20.6 J[ei]	0.079 J	292 J[ei]	0.33
Calcium	mg/kg	1030	4450	675	21100	572	2180	96900	5330	77600	63700
Chromium	mg/kg	4.8 J[i]	9.0 J[i]	6.8 J[i]	6.1 J[i]	5.6 J[i]	10.6 J[i]	24.0 J[i]	7.3 J[i]	159 J[ei]	18.4 J[i]
Cobalt	mg/kg	1.9	2.3	1.5	2.9	2.0	4.5	2.5	2.8	19.4[ei]	10.7[ei]
Copper	mg/kg	3.1 J	5.7 J	3.4 J	7.2 J	2.9 J	8.4 J	10.6 J	9.1 J	266 J[i]	24.4
Iron	mg/kg	4310	6550	4180	6480	4810	8270	4070	8220	34100[e]	18700[e]
Lead	mg/kg	4.4 J	3.3 J	2.1 J	3.4 J	3.7 J	11.2 J	156 J	4.6 J	61300 J[degi]	10.3 J
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	722	1840	654	4690	764	1470	52100[e]	1770	17900	19200
Manganese	mg/kg	61.7 J	106 J	47.3 J	126 J	73.9 J	344 J	127 J	170 J	600 J[ei]	409 J
Mercury	mg/kg	0.035 J	0.018 J	0.014 J	0.012 J	0.018 J	0.015 J	0.0053 J	0.0087 J	0.18[i]	0.027 J
Nickel	mg/kg	3.9	6.3	4.0	7.2	4.7	9.9	5.8	8.6	27.4	29.0
Potassium	mg/kg	172 J	312 J	236 J	438 J	151 J	396 J	265 J	372 J	439 J	2500
Selenium	mg/kg	0.16 J	0.14 J	0.096 J	0.28 J	0.21 UJ	0.31 J	7.1 J[ei]	0.16 J	101 J[ei]	0.25 U
Silver	mg/kg	0.53 U	0.58 U	0.55 U	0.59 U	0.53 U	0.57 U	0.22 J	0.55 U	12.0[i]	0.63 U
Sodium	mg/kg	107 U	116 U	110 U	119 U	106 U	113 U	154	111 U	1430	205
Thallium	mg/kg	0.065 J	0.12 U	0.11 U	0.11 J	0.064 J	0.072 J	0.070 J	0.075 J	0.16 U	0.36
Vanadium	mg/kg	6.8	11.4	7.7	9.6	7.5	12.7	10.1	11.6	26.7	25.2
Zinc	mg/kg	14.2	17.5	10.2	21.0	13.2	39.4	219	32.4	2470[i]	63.3 J
Cyanide (total)	mg/kg	0.21 U	0.23 U	0.22 U	0.24 U	0.21 U	0.23 U	0.22 U	0.22 U	3.2[i]	0.25 U
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-67*	*SB18-67*	*SB18-68*	*SB18-68*	*SB18-69*	*SB18-69*	*SB18-70*	*SB18-70*	*SB18-70*	*SB18-71*
Sample Depth:		*0-2 ft BGS*	*6-8 ft BGS*	*0-2 ft BGS*	*9-11 ft BGS*	*0-2 ft BGS*	*4-6 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*5-6 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-051904-DCR-335*	*S-17303-051904-DCR-336*	*S-17303-051904-DCR-333*	*S-17303-051904-DCR-334*	*S-17303-051904-DCR-331*	*S-17303-051904-DCR-332*	*S-17303-051904-DCR-328*	*S-17303-051904-DCR-329*	*S-17303-051904-DCR-330*	*S-17303-052404-DCR-348*
Sample Date:		*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1221)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1232)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1242)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1248)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1254)	mg/kg	0.35 U	0.38 U	0.36 U	0.39 U	0.35 U	0.37 U	0.36 U	0.37 U	0.53 U	0.42 U
Aroclor-12(PCB-1260)	mg/kg	0.018 J	0.38 U	1.1	0.43	0.35 U	0.37 U	0.28 J	0.37 U	2	0.42 U
Total PCBs	mg/kg	0.018 J	0.38 U	1.1	0.43	0.35 U	0.37 U	0.28 J	0.37 U	2	0.42 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-72*	*SB18-72*	*SB18-74*	*SB18-75*	*SB18-75*	*SB18-76*	*SB18-76*	*SB18-77*	*SB18-77*	*SB18-78*
Sample Depth:		*0-2 ft BGS*	*2-4 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*4-5 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*9-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-346*	*S-17303-052404-DCR-347*	*S-17303-051904-DCR-341*	*S-17303-051904-DCR-342*	*S-17303-051904-DCR-343*	*S-17303-052404-DCR-349*	*S-17303-052404-DCR-350*	*S-17303-052404-DCR-351*	*S-17303-052404-DCR-352*	*S-17303-082304-BW-397*
Sample Date:		*05/24/2004*	*05/24/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,1,2,2-Tetrachloroethane	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
1,1,2-Trichloroethane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,1-Dichloroethane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,1-Dichloroethene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
1,2-Dichlorobenzene	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
1,2-Dichloroethane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.84 U	2.5 UJ	41 U	67 U	0.72 U	0.75 U	0.84 U	0.77 U	5.7 U	-
2-Hexanone	mg/kg	2.8 U	8.5 UJ	140 U	220 U	2.4 U	2.5 U	2.8 U	2.6 U	19 U	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.8 U	8.5 UJ	140 U	220 U	2.4 U	2.5 U	2.8 U	2.6 U	19 U	-
Acetone	mg/kg	0.84 U	2.5 UJ	41 U	67 U	0.72 U	0.75 U	0.84 U	0.77 U	5.7 U	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.018 J	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
Bromoform	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
Bromomethane (Methyl bromide)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Carbon disulfide	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Carbon tetrachloride	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Chlorobenzene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Chloroform (Trichloromethane)	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Chloromethane (Methyl chloride)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
cis-1,2-Dichloroethene	mg/kg	0.11	0.17 UJ	**72**[efi]	**140**[efi]	0.71	0.05 U	0.029 J	0.035 J	1.1	0.05 U
cis-1,3-Dichloropropene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Cyclohexane	mg/kg	0.037 J	4.1 UJ	66 U	110 U	1.2 U	1.2 U	1.3 U	1.2 U	9 U	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-72*	*SB18-72*	*SB18-74*	*SB18-75*	*SB18-75*	*SB18-76*	*SB18-76*	*SB18-77*	*SB18-77*	*SB18-78*
Sample Depth:		*0-2 ft BGS*	*2-4 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*4-5 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*9-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-346*	*S-17303-052404-DCR-347*	*S-17303-051904-DCR-341*	*S-17303-051904-DCR-342*	*S-17303-051904-DCR-343*	*S-17303-052404-DCR-349*	*S-17303-052404-DCR-350*	*S-17303-052404-DCR-351*	*S-17303-052404-DCR-352*	*S-17303-082304-BW-397*
Sample Date:		*05/24/2004*	*05/24/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.13	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.075 J	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Methyl acetate	mg/kg	0.15 J	4.1 UJ	66 U	110 U	0.058 J	1.2 U	1.3 U	1.2 U	9 U	-
Methyl cyclohexane	mg/kg	0.028 J	4.1 UJ	66 U	110 U	1.2 U	1.2 U	1.3 U	1.2 U	9 U	-
Methyl tert butyl ether (MTBE)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Methylene chloride	mg/kg	0.28 U	0.85 UJ	**3.4 J[e]**	**5.6 J[e]**	0.054 J	0.25 U	0.28 U	0.26 U	1.9 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	0.05 U
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	0.1 U
Styrene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Tetrachloroethene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
Toluene	mg/kg	0.025 J	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
trans-1,3-Dichloropropene	mg/kg	0.056 U	0.17 UJ	2.7 U	4.5 U	0.048 U	0.05 U	0.056 U	0.051 U	0.38 U	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.056 U	0.17 UJ	2.7 U	**10[ei]**	0.048 U	0.064	**0.6[e]**	**0.55[e]**	**13[ei]**	0.006 J
Trichlorofluoromethane (CFC-11)	mg/kg	0.11 U	0.34 UJ	5.5 U	9 U	0.096 U	0.1 U	0.11 U	0.1 U	0.75 U	-
Trifluorotrichloroethane (Freon 113)	mg/kg	0.28 U	0.85 UJ	14 U	22 U	0.24 U	0.25 U	0.28 U	0.26 U	1.9 U	-
Vinyl chloride	mg/kg	0.11 U	**4.1 J[efi]**	**4.5 J[efi]**	9 U	**1.4[ei]**	0.1 U	0.11 U	0.1 U	0.75 U	0.05 U
Xylenes (total)	mg/kg	0.51 J	1.7 UJ	27 U	45 U	0.48 U	0.5 U	0.56 U	0.51 U	3.8 U	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2,4,5-Trichlorophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2,4,6-Trichlorophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2,4-Dichlorophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2,4-Dimethylphenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2,4-Dinitrophenol	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
2,4-Dinitrotoluene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-72*	*SB18-72*	*SB18-74*	*SB18-75*	*SB18-75*	*SB18-76*	*SB18-76*	*SB18-77*	*SB18-77*	*SB18-78*
Sample Depth:		*0-2 ft BGS*	*2-4 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*4-5 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*9-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-346*	*S-17303-052404-DCR-347*	*S-17303-051904-DCR-341*	*S-17303-051904-DCR-342*	*S-17303-051904-DCR-343*	*S-17303-052404-DCR-349*	*S-17303-052404-DCR-350*	*S-17303-052404-DCR-351*	*S-17303-052404-DCR-352*	*S-17303-082304-BW-397*
Sample Date:		*05/24/2004*	*05/24/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2-Chloronaphthalene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2-Chlorophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2-Methylnaphthalene	mg/kg	1.5 U	0.39 U	0.018 J	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2-Methylphenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
2-Nitroaniline	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
2-Nitrophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
3-Nitroaniline	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
4,6-Dinitro-2-methylphenol	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
4-Bromophenyl phenyl ether	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
4-Chloro-3-methylphenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
4-Chloroaniline	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
4-Chlorophenyl phenyl ether	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
4-Methylphenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
4-Nitroaniline	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
4-Nitrophenol	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-
Acenaphthene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Acenaphthylene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Acetophenone	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Anthracene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Atrazine	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzaldehyde	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzo(a)anthracene	mg/kg	1.5 U	0.39 U	0.42 U	0.068 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzo(a)pyrene	mg/kg	1.5 U	0.39 U	0.42 U	0.077 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzo(b)fluoranthene	mg/kg	1.5 U	0.39 U	0.42 U	0.13 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzo(g,h,i)perylene	mg/kg	1.5 U	0.39 U	0.42 U	0.072 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Benzo(k)fluoranthene	mg/kg	1.5 U	0.39 U	0.42 U	0.05 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Biphenyl (1,1-Biphenyl)	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
bis(2-Chloroethoxy)methane	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
bis(2-Chloroethyl)ether	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	1.5 U	0.39 U	0.42 U	0.27 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Butyl benzylphthalate (BBP)	mg/kg	1.5 U	0.39 U	0.42 U	0.043 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Caprolactam	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Carbazole	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Chrysene	mg/kg	1.5 U	0.39 U	0.42 U	0.11 J	0.016 J	0.36 U	0.37 U	0.36 U	0.36 U	-
Dibenz(a,h)anthracene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Dibenzofuran	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Diethyl phthalate	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Dimethyl phthalate	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Di-n-butylphthalate (DBP)	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Di-n-octyl phthalate (DnOP)	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Fluoranthene	mg/kg	0.092 J	0.39 U	0.42 U	0.22 J	0.4 U	0.36 U	0.022 J	0.36 U	0.36 U	-
Fluorene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Hexachlorobenzene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Hexachlorobutadiene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Hexachlorocyclopentadiene	mg/kg	7.5 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U	-

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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-72*	*SB18-72*	*SB18-74*	*SB18-75*	*SB18-75*	*SB18-76*	*SB18-76*	*SB18-77*	*SB18-77*	*SB18-78*
Sample Depth:		*0-2 ft BGS*	*2-4 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*4-5 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*9-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-346*	*S-17303-052404-DCR-347*	*S-17303-051904-DCR-341*	*S-17303-051904-DCR-342*	*S-17303-051904-DCR-343*	*S-17303-052404-DCR-349*	*S-17303-052404-DCR-350*	*S-17303-052404-DCR-351*	*S-17303-052404-DCR-352*	*S-17303-082304-BW-397*
Sample Date:		*05/24/2004*	*05/24/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Indeno(1,2,3-cd)pyrene	mg/kg	1.5 U	0.39 U	0.42 U	0.058 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Isophorone	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Naphthalene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Nitrobenzene	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
N-Nitrosodi-n-propylamine	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
N-Nitrosodiphenylamine	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Pentachlorophenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Phenanthrene	mg/kg	0.071 J	0.39 U	0.022 J	0.1 J	0.4 U	0.36 U	0.025 J	0.36 U	0.36 U	-
Phenol	mg/kg	1.5 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	-
Pyrene	mg/kg	0.081 J	0.39 U	0.42 U	0.16 J	0.4 U	0.36 U	0.017 J	0.36 U	0.36 U	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	**7480[e]**	**9410[e]**	**11900[e]**	5260	**10000[e]**	3680	1570	3380	1570	-
Antimony	mg/kg	0.59 UJ	0.59 UJ	0.64 UJ	0.56 UJ	0.60 UJ	0.54 UJ	0.55 UJ	0.54 UJ	0.54 UJ	-
Arsenic	mg/kg	3.2	4.7	4.8	3.6	4.3	2.2	2.0	2.1	3.5	-
Barium	mg/kg	53.9	71.3	72.1 J	32.5 J	65.3 J	15.7	6.8	16.3	7.6	-
Beryllium	mg/kg	0.37	0.44	0.55	0.25	0.47	0.098 J	0.043 J	0.11 J	0.080 J	-
Cadmium	mg/kg	0.41	0.23	0.22 J	0.14 J	0.17 J	0.26	0.092	0.080	0.13	-
Calcium	mg/kg	44300	66700	62100	39400	65300 J	664	18600	636	23000	-
Chromium	mg/kg	**15.5 J[i]**	**16.0 J[i]**	**20.7 J[i]**	**10.1 J[i]**	**17.3 J[i]**	**5.8 J[i]**	**4.7 J[i]**	**5.8 J[i]**	**4.6 J[i]**	-
Cobalt	mg/kg	**7.2[ei]**	**8.9[ei]**	**10.3[ei]**	5.2	**9.3[ei]**	1.9	1.7	2.3	2.0	-
Copper	mg/kg	16.9	22.1	23.9 J	11.6 J	21.2 J	3.2 U	4.3	4.1	8.0	-
Iron	mg/kg	**14700[e]**	**18000[e]**	**22100[e]**	10600	**19300[e]**	5330	5060	5260	7020	-
Lead	mg/kg	9.3 J	8.9 J	9.5 J	6.8 J	9.3 J	4.0 J	4.0 J	7.0 J	2.3 J	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	12400	17600	16700	9500	17600	808	3460	839	4420	-
Manganese	mg/kg	311 J	420 J	417 J	266 J	430 J	72.4 J	125 J	79.6 J	197 J	-
Mercury	mg/kg	0.026 J	0.019 J	0.024 J	0.015 J	0.023 J	0.013 J	0.018 J	0.023 J	0.0095 J	-
Nickel	mg/kg	18.4	**23.2**	**27.6**	13.4	**24.2**	4.4	3.4	4.8	6.2	-
Potassium	mg/kg	1670	1930	2960	1190	2300	139 J	167 J	151 J	247 J	-
Selenium	mg/kg	0.16 J	0.24 U	0.13 J	0.13 J	0.19 J	0.11 J	0.22 U	0.22 U	0.13 J	-
Silver	mg/kg	0.59 U	0.59 U	0.64 U	0.56 U	0.60 U	0.54 U	0.55 U	0.54 U	0.54 U	-
Sodium	mg/kg	148	138	227	113 U	121	108 U	111 U	108 U	109 U	-
Thallium	mg/kg	0.17	0.32	0.29	0.15	0.27	0.041 J	0.038 J	0.029 J	0.049 J	-
Vanadium	mg/kg	18.4	22.3	26.1	13.7	23.5	8.6	5.7	8.1	8.4	-
Zinc	mg/kg	48.3 J	133 J	59.1	31.2	54.0	21.8 J	23.8 J	15.2 J	18.0 J	-
Cyanide (total)	mg/kg	0.23 U	0.24 U	0.25 U	0.23 U	0.24 U	0.22 U	0.22 U	0.22 U	0.22 U	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-72*	*SB18-72*	*SB18-74*	*SB18-75*	*SB18-75*	*SB18-76*	*SB18-76*	*SB18-77*	*SB18-77*	*SB18-78*
Sample Depth:		*0-2 ft BGS*	*2-4 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*4-5 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*9-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-052404-DCR-346*	*S-17303-052404-DCR-347*	*S-17303-051904-DCR-341*	*S-17303-051904-DCR-342*	*S-17303-051904-DCR-343*	*S-17303-052404-DCR-349*	*S-17303-052404-DCR-350*	*S-17303-052404-DCR-351*	*S-17303-052404-DCR-352*	*S-17303-082304-BW-397*
Sample Date:		*05/24/2004*	*05/24/2004*	*05/19/2004*	*05/19/2004*	*05/19/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*05/24/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.39 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.39 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.39 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.39 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.048 J	0.39 U	0.04 J	0.027 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.39 U	0.39 U	0.42 U	0.37 U	0.4 U	0.36 U	0.37 U	0.021 J	0.36 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.074 J	0.39 U	0.0089 J	0.024 J	0.4 U	0.36 U	0.37 U	0.36 U	0.36 U	0.33 U
Total PCBs	mg/kg	0.122 J	0.39 U	0.0489 J	0.051 J	0.4 U	0.36 U	0.37 U	0.021 J	0.36 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-78*	*SB18-78*	*SB18-78*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-80*	*SB18-80*	*SB18-80*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082304-BW-398*	*S-17303-082304-BW-399*	*S-17303-082304-BW-400*	*S-17303-082304-BW-391*	*S-17303-082304-BW-392*	*S-17303-082304-BW-393*	*S-17303-082304-BW-394*	*S-17303-082304-BW-381*	*S-17303-082304-BW-382*	*S-17303-082304-BW-383*
Sample Date:		*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.05 U	0.11	**1.5[e]**	0.008 J	0.008 J	0.05 U	0.07	0.05 U	0.08	**10.8[e]**
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-78***	***SB18-78***	***SB18-78***	***SB18-79***	***SB18-79***	***SB18-79***	***SB18-79***	***SB18-80***	***SB18-80***	***SB18-80***
Sample Depth:		***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***
Sample ID:		***S-17303-082304-BW-398***	***S-17303-082304-BW-399***	***S-17303-082304-BW-400***	***S-17303-082304-BW-391***	***S-17303-082304-BW-392***	***S-17303-082304-BW-393***	***S-17303-082304-BW-394***	***S-17303-082304-BW-381***	***S-17303-082304-BW-382***	***S-17303-082304-BW-383***
Sample Date:		***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**2.7**[ei]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1.2
p-Xylene	mg/kg	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**5.7**[e]
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1.1
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.01 J	**2.92**[e]	**24.7**[ei]	0.04 J	0.06	0.03 J	**1.85**[e]	0.02 J	**2.60 J**[e]	0.07 J
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**3.7**[efi]
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-78*	*SB18-78*	*SB18-78*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-80*	*SB18-80*	*SB18-80*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082304-BW-398*	*S-17303-082304-BW-399*	*S-17303-082304-BW-400*	*S-17303-082304-BW-391*	*S-17303-082304-BW-392*	*S-17303-082304-BW-393*	*S-17303-082304-BW-394*	*S-17303-082304-BW-381*	*S-17303-082304-BW-382*	*S-17303-082304-BW-383*
Sample Date:		*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-78*	*SB18-78*	*SB18-78*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-79*	*SB18-80*	*SB18-80*	*SB18-80*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082304-BW-398*	*S-17303-082304-BW-399*	*S-17303-082304-BW-400*	*S-17303-082304-BW-391*	*S-17303-082304-BW-392*	*S-17303-082304-BW-393*	*S-17303-082304-BW-394*	*S-17303-082304-BW-381*	*S-17303-082304-BW-382*	*S-17303-082304-BW-383*
Sample Date:		*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-78***	***SB18-78***	***SB18-78***	***SB18-79***	***SB18-79***	***SB18-79***	***SB18-79***	***SB18-80***	***SB18-80***	***SB18-80***
Sample Depth:		***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***
Sample ID:		***S-17303-082304-BW-398***	***S-17303-082304-BW-399***	***S-17303-082304-BW-400***	***S-17303-082304-BW-391***	***S-17303-082304-BW-392***	***S-17303-082304-BW-393***	***S-17303-082304-BW-394***	***S-17303-082304-BW-381***	***S-17303-082304-BW-382***	***S-17303-082304-BW-383***
Sample Date:		***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***
Sample Type:											
Parameter:	***Units***										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.33 U	0.33 U	0.33 U	0.36	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.03 J
Total PCBs	mg/kg	0.33 U	0.33 U	0.33 U	0.36	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.03 J
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-81*	*SB18-81*	*SB18-81*	*SB18-81*	*SB18-82*	*SB18-82*	*SB18-82*	*SB18-82*	*SB18-84*	*SB18-85*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*3-3 ft BGS*	*2.5-5 ft BGS*
Sample ID:		*S-17303-082304-BW-385*	*S-17303-082304-BW-386*	*S-17303-082304-BW-387*	*S-17303-082304-BW-388*	*S-17303-082304-BW-403*	*S-17303-082304-BW-404*	*S-17303-082304-BW-405*	*S-17303-082304-BW-406*	*S-17303-082304-BW-408*	*S-17303-082404-BW-410*
Sample Date:		*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/24/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.05 U	0.05 U	0.05 U	**2.66**[e]	0.05 U	0.05 U	0.05 U	**8.4**[e]	1.09	0.05 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-81***	***SB18-81***	***SB18-81***	***SB18-81***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-84***	***SB18-85***
Sample Depth:		***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***3-3 ft BGS***	***2.5-5 ft BGS***
Sample ID:		***S-17303-082304-BW-385***	***S-17303-082304-BW-386***	***S-17303-082304-BW-387***	***S-17303-082304-BW-388***	***S-17303-082304-BW-403***	***S-17303-082304-BW-404***	***S-17303-082304-BW-405***	***S-17303-082304-BW-406***	***S-17303-082304-BW-408***	***S-17303-082404-BW-410***
Sample Date:		***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/24/2004***
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U
p-Xylene	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.05 J	0.05 J	0.06	**3.09[e]**	0.009 J	0.05 U	0.02 J	**5.6[ei]**	**1.74[e]**	**0.53[e]**
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-81*	*SB18-81*	*SB18-81*	*SB18-81*	*SB18-82*	*SB18-82*	*SB18-82*	*SB18-82*	*SB18-84*	*SB18-85*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*3-3 ft BGS*	*2.5-5 ft BGS*
Sample ID:		*S-17303-082304-BW-385*	*S-17303-082304-BW-386*	*S-17303-082304-BW-387*	*S-17303-082304-BW-388*	*S-17303-082304-BW-403*	*S-17303-082304-BW-404*	*S-17303-082304-BW-405*	*S-17303-082304-BW-406*	*S-17303-082304-BW-408*	*S-17303-082404-BW-410*
Sample Date:		*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/23/2004*	*08/24/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-81***	***SB18-81***	***SB18-81***	***SB18-81***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-84***	***SB18-85***
Sample Depth:		***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***3-3 ft BGS***	***2.5-5 ft BGS***
Sample ID:		***S-17303-082304-BW-385***	***S-17303-082304-BW-386***	***S-17303-082304-BW-387***	***S-17303-082304-BW-388***	***S-17303-082304-BW-403***	***S-17303-082304-BW-404***	***S-17303-082304-BW-405***	***S-17303-082304-BW-406***	***S-17303-082304-BW-408***	***S-17303-082404-BW-410***
Sample Date:		***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/24/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-81***	***SB18-81***	***SB18-81***	***SB18-81***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-82***	***SB18-84***	***SB18-85***
Sample Depth:		***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***3-3 ft BGS***	***2.5-5 ft BGS***
Sample ID:		***S-17303-082304-BW-385***	***S-17303-082304-BW-386***	***S-17303-082304-BW-387***	***S-17303-082304-BW-388***	***S-17303-082304-BW-403***	***S-17303-082304-BW-404***	***S-17303-082304-BW-405***	***S-17303-082304-BW-406***	***S-17303-082304-BW-408***	***S-17303-082404-BW-410***
Sample Date:		***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/23/2004***	***08/24/2004***
Sample Type:											
Parameter:	***Units***										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.03 J	0.16 J	0.33 U	0.33 U	0.1 J	0.33 U	0.33 U	1.3	0.33 U	0.33 U
Total PCBs	mg/kg	0.03 J	0.16 J	0.33 U	0.33 U	0.1 J	0.33 U	0.33 U	1.3	0.33 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-86*	*SB18-88*	*SB18-88*	*SB18-89*	*SB18-90*	*SB18-91*	*SB18-91*	*SB18-92*	*SB18-92*	*SB18-93*
Sample Depth:		*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*7.5-10 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*17.5-17.5 ft BGS*	*0-2 ft BGS*	*6.9-6.9 ft BGS*	*0-1 ft BGS*
Sample ID:		*S-17303-082404-BW-412*	*S-17303-082404-BW-414*	*S-17303-082404-BW-415*	*S-17303-082404-BW-419*	*S-17303-082404-BW-423*	*S-17303-082404-BW-428*	*S-17303-082404-BW-429*	*S-17303-082404-BW-430*	*S-17303-082404-BW-431*	*S-17303-082404-BW-432*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.05 U	0.02 J	0.44	**7.6**[e]	0.19	0.04 J	**1700**[bcdefhij]	0.05 U	**120**[efi]	**40**[ei]
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-86*	*SB18-88*	*SB18-88*	*SB18-89*	*SB18-90*	*SB18-91*	*SB18-91*	*SB18-92*	*SB18-92*	*SB18-93*
Sample Depth:		*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*7.5-10 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*17.5-17.5 ft BGS*	*0-2 ft BGS*	*6.9-6.9 ft BGS*	*0-1 ft BGS*
Sample ID:		*S-17303-082404-BW-412*	*S-17303-082404-BW-414*	*S-17303-082404-BW-415*	*S-17303-082404-BW-419*	*S-17303-082404-BW-423*	*S-17303-082404-BW-428*	*S-17303-082404-BW-429*	*S-17303-082404-BW-430*	*S-17303-082404-BW-431*	*S-17303-082404-BW-432*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	**118 J[ei]**	0.05 U	**4 J[ei]**	**1[i]**
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	3000 U	0.3 U	30 U	5 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	**180 J[defhj]**	0.05 U	**7[e]**	0.9 J
p-Xylene	mg/kg	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	**451 J[defhj]**	0.1 U	**20[e]**	3
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	**175 J[ei]**	0.05 U	**16[i]**	1
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.03 J	0.07	0.06	**9.9[ei]**	**1.16[e]**	**0.45[e]**	**96200[bcdefhij]**	**0.23[e]**	5 U	**0.6 J[e]**
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	**231 J[bcdefhi]**	0.05 U	**12[efi]**	**7[efi]**
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-86*	*SB18-88*	*SB18-88*	*SB18-89*	*SB18-90*	*SB18-91*	*SB18-91*	*SB18-92*	*SB18-92*	*SB18-93*
Sample Depth:		*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*7.5-10 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*17.5-17.5 ft BGS*	*0-2 ft BGS*	*6.9-6.9 ft BGS*	*0-1 ft BGS*
Sample ID:		*S-17303-082404-BW-412*	*S-17303-082404-BW-414*	*S-17303-082404-BW-415*	*S-17303-082404-BW-419*	*S-17303-082404-BW-423*	*S-17303-082404-BW-428*	*S-17303-082404-BW-429*	*S-17303-082404-BW-430*	*S-17303-082404-BW-431*	*S-17303-082404-BW-432*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/24/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-86***	***SB18-88***	***SB18-88***	***SB18-89***	***SB18-90***	***SB18-91***	***SB18-91***	***SB18-92***	***SB18-92***	***SB18-93***
Sample Depth:		***2.5-5 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***7.5-10 ft BGS***	***7.5-10 ft BGS***	***10-12.5 ft BGS***	***17.5-17.5 ft BGS***	***0-2 ft BGS***	***6.9-6.9 ft BGS***	***0-1 ft BGS***
Sample ID:		***S-17303-082404-BW-412***	***S-17303-082404-BW-414***	***S-17303-082404-BW-415***	***S-17303-082404-BW-419***	***S-17303-082404-BW-423***	***S-17303-082404-BW-428***	***S-17303-082404-BW-429***	***S-17303-082404-BW-430***	***S-17303-082404-BW-431***	***S-17303-082404-BW-432***
Sample Date:		***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-86***	***SB18-88***	***SB18-88***	***SB18-89***	***SB18-90***	***SB18-91***	***SB18-91***	***SB18-92***	***SB18-92***	***SB18-93***
Sample Depth:		***2.5-5 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***7.5-10 ft BGS***	***7.5-10 ft BGS***	***10-12.5 ft BGS***	***17.5-17.5 ft BGS***	***0-2 ft BGS***	***6.9-6.9 ft BGS***	***0-1 ft BGS***
Sample ID:		***S-17303-082404-BW-412***	***S-17303-082404-BW-414***	***S-17303-082404-BW-415***	***S-17303-082404-BW-419***	***S-17303-082404-BW-423***	***S-17303-082404-BW-428***	***S-17303-082404-BW-429***	***S-17303-082404-BW-430***	***S-17303-082404-BW-431***	***S-17303-082404-BW-432***
Sample Date:		***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/24/2004***
Sample Type:											
Parameter:	***Units***										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	40 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.4	360[d]	0.33 U	0.6	0.33 U
Total PCBs	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.4	360[d]	0.33 U	0.6	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-93*	*SB18-94*	*SB18-94*	*SB18-95*	*SB18-94*	*SB18-95*	*SB18-95*	*SB18-95*	*SB18-98*	*SB18-99*
Sample Depth:		*3.9-3.9 ft BGS*	*1.5-1.5 ft BGS*	*4.5-4.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-082404-BW-433*	*S-17303-082404-BW-434*	*S-17303-082404-BW-435*	*S-17303-082504-BW-436*	*S-17303-082504-BW-437*	*S-17303-082504-BW-438*	*S-17303-082504-BW-439*	*S-17303-082504-BW-445*	*S-17303-082504-BW-446*	*S-17303-082504-BW-447*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**101[efi]**	0.02 J	**12.1[ei]**	0.05 U	0.05 U	0.18	**8.1[e]**	**111[efi]**	0.67	**54.1[efi]**
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-93***	***SB18-94***	***SB18-94***	***SB18-95***	***SB18-94***	***SB18-95***	***SB18-95***	***SB18-98***	***SB18-98***	***SB18-99***
Sample Depth:		***3.9-3.9 ft BGS***	***1.5-1.5 ft BGS***	***4.5-4.5 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***0-3 ft BGS***
Sample ID:		***S-17303-082404-BW-433***	***S-17303-082404-BW-434***	***S-17303-082404-BW-435***	***S-17303-082504-BW-436***	***S-17303-082504-BW-437***	***S-17303-082504-BW-438***	***S-17303-082504-BW-439***	***S-17303-082504-BW-445***	***S-17303-082504-BW-446***	***S-17303-082504-BW-447***
Sample Date:		***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	**2[ei]**	0.05 U	**1.2[i]**	0.05 U	0.05 U	0.05 U	0.5 U	1 U	0.05 U	0.5 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	5 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U	3 U	5 U	0.3 U	3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	2	0.05 U	0.5 J	0.05 U	0.05 U	0.05 U	0.5 U	1 U	0.05 U	0.5 U
p-Xylene	mg/kg	**6[e]**	0.1 U	3	0.1 U	0.1 U	0.1 U	1 U	2 U	0.1 U	1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	2	0.05 U	0.7	0.05 U	0.05 U	0.05 U	0.5 U	1 U	0.05 U	0.2 J
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**2[e]**	**0.19[e]**	**0.7[e]**	0.03 J	0.01 J	**0.28[e]**	**9.2[ei]**	**3[e]**	0.06	**0.8[e]**
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	**8[efi]**	0.05 U	**5.7[efi]**	0.05 U	0.05 U	0.05 U	0.5 U	**5[efi]**	0.05 U	**2.8[ei]**
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-93*	*SB18-94*	*SB18-94*	*SB18-95*	*SB18-95*	*SB18-95*	*SB18-95*	*SB18-98*	*SB18-98*	*SB18-99*
Sample Depth:		*3.9-3.9 ft BGS*	*1.5-1.5 ft BGS*	*4.5-4.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-082404-BW-433*	*S-17303-082404-BW-434*	*S-17303-082404-BW-435*	*S-17303-082504-BW-436*	*S-17303-082504-BW-437*	*S-17303-082504-BW-438*	*S-17303-082504-BW-439*	*S-17303-082504-BW-445*	*S-17303-082504-BW-446*	*S-17303-082504-BW-447*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-93***	***SB18-94***	***SB18-94***	***SB18-95***	***SB18-95***	***SB18-95***	***SB18-95***	***SB18-98***	***SB18-98***	***SB18-99***
Sample Depth:		***3.9-3.9 ft BGS***	***1.5-1.5 ft BGS***	***4.5-4.5 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***	***7.5-10 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***0-3 ft BGS***
Sample ID:		***S-17303-082404-BW-433***	***S-17303-082404-BW-434***	***S-17303-082404-BW-435***	***S-17303-082504-BW-436***	***S-17303-082504-BW-437***	***S-17303-082504-BW-438***	***S-17303-082504-BW-439***	***S-17303-082504-BW-445***	***S-17303-082504-BW-446***	***S-17303-082504-BW-447***
Sample Date:		***08/24/2004***	***08/24/2004***	***08/24/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-93*	*SB18-94*	*SB18-94*	*SB18-95*	*SB18-95*	*SB18-95*	*SB18-95*	*SB18-98*	*SB18-98*	*SB18-99*
Sample Depth:		*3.9-3.9 ft BGS*	*1.5-1.5 ft BGS*	*4.5-4.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-082404-BW-433*	*S-17303-082404-BW-434*	*S-17303-082404-BW-435*	*S-17303-082504-BW-436*	*S-17303-082504-BW-437*	*S-17303-082504-BW-438*	*S-17303-082504-BW-439*	*S-17303-082504-BW-445*	*S-17303-082504-BW-446*	*S-17303-082504-BW-447*
Sample Date:		*08/24/2004*	*08/24/2004*	*08/24/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.02 J	0.12 J	0.5	0.6	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.07 J
Total PCBs	mg/kg	0.02 J	0.12 J	0.5	0.6	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.07 J
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-99*	*SB18-100*	*SB18-100*	*SB18-101*	*SB18-101*	*SB18-103*	*SB18-103*	*SB18-104*	*SB18-104*	*SB18-104*
Sample Depth:		*3-6 ft BGS*	*0-2 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*3-3 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*
Sample ID:		*S-17303-082504-BW-448*	*S-17303-082504-BW-449*	*S-17303-082504-BW-450*	*S-17303-082504-BW-451*	*S-17303-082504-BW-452*	*S-17303-082504-BW-455*	*S-17303-082504-BW-456*	*S-17303-082504-BW-457*	*S-17303-082504-BW-458*	*S-17303-083104-BW-513*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.64	**37.4^{ei}**	0.08	**50^{efi}**	0.08	**63^{efi}**	0.19	**25.6^{ei}**	**229^{cefi}**	0.05 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-99*	*SB18-100*	*SB18-100*	*SB18-101*	*SB18-101*	*SB18-103*	*SB18-103*	*SB18-104*	*SB18-104*	*SB18-104*
Sample Depth:		*3-6 ft BGS*	*0-2 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*3-3 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*
Sample ID:		*S-17303-082504-BW-448*	*S-17303-082504-BW-449*	*S-17303-082504-BW-450*	*S-17303-082504-BW-451*	*S-17303-082504-BW-452*	*S-17303-082504-BW-455*	*S-17303-082504-BW-456*	*S-17303-082504-BW-457*	*S-17303-082504-BW-458*	*S-17303-083104-BW-513*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.2 J	0.05 U	1 U	0.05 U	1 U	0.05 U	0.2 U	5 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	1 U	0.3 U	5 U	0.3 U	5 U	0.3 U	1 U	30 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.4	0.05 U	1 U	0.05 U	1 U	0.05 U	0.2 U	5 U	0.05 U
p-Xylene	mg/kg	0.1 U	0.5	0.1 U	2 U	0.1 U	2 U	0.1 U	0.4 U	10 U	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.3	0.05 U	1 U	0.05 U	1 U	0.05 U	0.2 U	5 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**0.20[e]**	**0.2[e]**	0.05 U	1 U	0.05 U	1 U	0.05 U	0.2 U	5 U	0.05 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	**0.13[e]**	**6.5[efi]**	0.05 U	**6[efi]**	**0.05[e]**	**5[efi]**	0.05 U	**1.3[ei]**	**6[efi]**	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-99*	*SB18-100*	*SB18-100*	*SB18-101*	*SB18-101*	*SB18-103*	*SB18-103*	*SB18-104*	*SB18-104*	*SB18-104*
Sample Depth:		*3-6 ft BGS*	*0-2 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*3-3 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*
Sample ID:		*S-17303-082504-BW-448*	*S-17303-082504-BW-449*	*S-17303-082504-BW-450*	*S-17303-082504-BW-451*	*S-17303-082504-BW-452*	*S-17303-082504-BW-455*	*S-17303-082504-BW-456*	*S-17303-082504-BW-457*	*S-17303-082504-BW-458*	*S-17303-083104-BW-513*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-99*	*SB18-100*	*SB18-100*	*SB18-101*	*SB18-101*	*SB18-103*	*SB18-103*	*SB18-104*	*SB18-104*	*SB18-104*
Sample Depth:		*3-6 ft BGS*	*0-2 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*3-3 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*
Sample ID:		*S-17303-082504-BW-448*	*S-17303-082504-BW-449*	*S-17303-082504-BW-450*	*S-17303-082504-BW-451*	*S-17303-082504-BW-452*	*S-17303-082504-BW-455*	*S-17303-082504-BW-456*	*S-17303-082504-BW-457*	*S-17303-082504-BW-458*	*S-17303-083104-BW-513*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-99*	*SB18-100*	*SB18-100*	*SB18-101*	*SB18-101*	*SB18-103*	*SB18-103*	*SB18-104*	*SB18-104*	*SB18-104*
Sample Depth:		*3-6 ft BGS*	*0-2 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*3-3 ft BGS*	*6-6 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*
Sample ID:		*S-17303-082504-BW-448*	*S-17303-082504-BW-449*	*S-17303-082504-BW-450*	*S-17303-082504-BW-451*	*S-17303-082504-BW-452*	*S-17303-082504-BW-455*	*S-17303-082504-BW-456*	*S-17303-082504-BW-457*	*S-17303-082504-BW-458*	*S-17303-083104-BW-513*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.33 U	0.03 J	0.33 U	0.33 U	0.33 U	0.03 J	0.33 U	0.33 U	0.33 U	0.33 U
Total PCBs	mg/kg	0.33 U	0.03 J	0.33 U	0.33 U	0.33 U	0.03 J	0.33 U	0.33 U	0.33 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-105*	*SB18-105*	*SB18-105*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-111*	*SB18-111*	*SB18-111*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082504-BW-459*	*S-17303-082504-BW-460*	*S-17303-083104-BW-514*	*S-17303-082504-BW-461*	*S-17303-082504-BW-462*	*S-17303-082504-BW-463*	*S-17303-082504-BW-464*	*S-17303-082604-BW-483*	*S-17303-082604-BW-484*	*S-17303-082604-BW-485*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/31/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**228**[cefi]	**288**[cefi]	0.12	0.02 J	0.02 J	0.59	**1.68**[e]	0.14	0.15	0.5
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-105***	***SB18-105***	***SB18-105***	***SB18-106***	***SB18-106***	***SB18-106***	***SB18-106***	***SB18-111***	***SB18-111***	***SB18-111***
Sample Depth:		***0-3 ft BGS***	***3-6 ft BGS***	***5-7 ft BGS***	***0-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***0-2.5 ft BGS***	***2.5-5 ft BGS***	***5-7.5 ft BGS***
Sample ID:		***S-17303-082504-BW-459***	***S-17303-082504-BW-460***	***S-17303-083104-BW-514***	***S-17303-082504-BW-461***	***S-17303-082504-BW-462***	***S-17303-082504-BW-463***	***S-17303-082504-BW-464***	***S-17303-082604-BW-483***	***S-17303-082604-BW-484***	***S-17303-082604-BW-485***
Sample Date:		***08/25/2004***	***08/25/2004***	***08/31/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/25/2004***	***08/26/2004***	***08/26/2004***	***08/26/2004***
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	5 U	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.27	**8.1**[ei]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	30 U	30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	5 U	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**6.1**[e]
p-Xylene	mg/kg	10 U	10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.4	**20.4**[e]
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	5 U	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.15	0.5
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**62**[efi]	**124**[efi]	0.05 U	**0.13**[e]	0.03 J	**0.54**[e]	**1.03**[e]	**0.27**[e]	0.05 U	0.2 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	5 U	**5 J**[efi]	**0.71**[ei]	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.41**[ei]	**1.6**[ei]
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-105*	*SB18-105*	*SB18-105*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-111*	*SB18-111*	*SB18-111*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082504-BW-459*	*S-17303-082504-BW-460*	*S-17303-083104-BW-514*	*S-17303-082504-BW-461*	*S-17303-082504-BW-462*	*S-17303-082504-BW-463*	*S-17303-082504-BW-464*	*S-17303-082604-BW-483*	*S-17303-082604-BW-484*	*S-17303-082604-BW-485*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/31/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-105*	*SB18-105*	*SB18-105*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-111*	*SB18-111*	*SB18-111*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082504-BW-459*	*S-17303-082504-BW-460*	*S-17303-083104-BW-514*	*S-17303-082504-BW-461*	*S-17303-082504-BW-462*	*S-17303-082504-BW-463*	*S-17303-082504-BW-464*	*S-17303-082604-BW-483*	*S-17303-082604-BW-484*	*S-17303-082604-BW-485*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/31/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-105*	*SB18-105*	*SB18-105*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-106*	*SB18-111*	*SB18-111*	*SB18-111*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*5-7 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*
Sample ID:		*S-17303-082504-BW-459*	*S-17303-082504-BW-460*	*S-17303-083104-BW-514*	*S-17303-082504-BW-461*	*S-17303-082504-BW-462*	*S-17303-082504-BW-463*	*S-17303-082504-BW-464*	*S-17303-082604-BW-483*	*S-17303-082604-BW-484*	*S-17303-082604-BW-485*
Sample Date:		*08/25/2004*	*08/25/2004*	*08/31/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/25/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	1 U
Aroclor-12(PCB-1260)	mg/kg	0.04 J	0.14	0.33 U	0.25 J	0.33 U	0.33 U	0.33 U	0.33 U	1	3
Total PCBs	mg/kg	0.04 J	0.14	0.33 U	0.25 J	0.33 U	0.33 U	0.33 U	0.33 U	1	3
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-111*	*SB18-111*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-113*	*SB18-113*	*SB18-113*	*SB18-113*
Sample Depth:		*7.5-7.5 ft BGS*	*8.5-8.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*
Sample ID:		*S-17303-082604-BW-486*	*S-17303-082604-BW-487*	*S-17303-082604-BW-488*	*S-17303-082604-BW-489*	*S-17303-082604-BW-490*	*S-17303-082604-BW-491*	*S-17303-082604-BW-492*	*S-17303-082604-BW-493*	*S-17303-082604-BW-494*	*S-17303-082604-BW-495*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**1110**[bcdefhij]	**5.7**[e]	0.24	**13.0**[ei]	**160**[efi]	0.29	0.07	0.05 U	**250**[cefi]	0.52
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-111*	*SB18-111*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-113*	*SB18-113*	*SB18-113*	*SB18-113*
Sample Depth:		*7.5-7.5 ft BGS*	*8.5-8.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*
Sample ID:		*S-17303-082604-BW-486*	*S-17303-082604-BW-487*	*S-17303-082604-BW-488*	*S-17303-082604-BW-489*	*S-17303-082604-BW-490*	*S-17303-082604-BW-491*	*S-17303-082604-BW-492*	*S-17303-082604-BW-493*	*S-17303-082604-BW-494*	*S-17303-082604-BW-495*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	30[ei]	0.5 U	0.05 U	0.5 U	4[ei]	0.05 U	0.05 U	0.07	30 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	100 U	3 U	0.3 U	3 U	10 U	0.3 U	0.3 U	0.3 U	100 U	0.06 J
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	50[e]	0.5 U	0.05 U	0.5 U	8[e]	0.05 U	0.05 U	0.25	30 U	0.05 U
p-Xylene	mg/kg	170[defhj]	1 U	0.1 U	1 U	22[e]	0.1 U	0.1 U	0.1	50 U	0.01 J
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	60[ei]	0.5 U	0.05 U	0.5 U	3	0.05 U	0.05 U	0.10	30 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	21.4[ei]	0.77[e]	1.3[e]	-	1.58[e]	0.13[e]	0.05 U	3450[bcdefhij]	3.19 J[e]
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	15 J[efi]	4.4[efi]	0.05 U	0.5 U	3[efi]	0.78[ei]	0.05 U	0.14[e]	30 U	1.43[ei]
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-111*	*SB18-111*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-113*	*SB18-113*	*SB18-113*	*SB18-113*
Sample Depth:		*7.5-7.5 ft BGS*	*8.5-8.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*
Sample ID:		*S-17303-082604-BW-486*	*S-17303-082604-BW-487*	*S-17303-082604-BW-488*	*S-17303-082604-BW-489*	*S-17303-082604-BW-490*	*S-17303-082604-BW-491*	*S-17303-082604-BW-492*	*S-17303-082604-BW-493*	*S-17303-082604-BW-494*	*S-17303-082604-BW-495*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-111*	*SB18-111*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-113*	*SB18-113*	*SB18-113*	*SB18-113*
Sample Depth:		*7.5-7.5 ft BGS*	*8.5-8.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*
Sample ID:		*S-17303-082604-BW-486*	*S-17303-082604-BW-487*	*S-17303-082604-BW-488*	*S-17303-082604-BW-489*	*S-17303-082604-BW-490*	*S-17303-082604-BW-491*	*S-17303-082604-BW-492*	*S-17303-082604-BW-493*	*S-17303-082604-BW-494*	*S-17303-082604-BW-495*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-111*	*SB18-111*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-112*	*SB18-113*	*SB18-113*	*SB18-113*	*SB18-113*
Sample Depth:		*7.5-7.5 ft BGS*	*8.5-8.5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*9-9 ft BGS*
Sample ID:		*S-17303-082604-BW-486*	*S-17303-082604-BW-487*	*S-17303-082604-BW-488*	*S-17303-082604-BW-489*	*S-17303-082604-BW-490*	*S-17303-082604-BW-491*	*S-17303-082604-BW-492*	*S-17303-082604-BW-493*	*S-17303-082604-BW-494*	*S-17303-082604-BW-495*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	2 U	0.33 U	0.33 U	1 U	5 U	0.33 U	0.33 U	2 U	10 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	17[d]	0.33 U	0.33 U	4	55[d]	0.33 U	0.33 U	8	57[d]	0.015 J
Total PCBs	mg/kg	17[d]	0.33 U	0.33 U	4	55[d]	0.33 U	0.33 U	8	57[d]	0.015 J
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-114*	*SB18-114*	*SB18-115*	*SB18-115*	*SB18-116*	*SB18-116*	*SB18-117*	*SB18-117*	*SB18-117*	*SB18-118*
Sample Depth:		*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*4-6 ft BGS*	*6-7.7 ft BGS*	*9.2-9.2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-082604-BW-498*	*S-17303-082604-BW-499*	*S-17303-082604-BW-500*	*S-17303-082604-BW-501*	*S-17303-082604-BW-502*	*S-17303-082604-BW-503*	*S-17303-083104-BW-507*	*S-17303-083104-BW-508*	*S-17303-083104-BW-509*	*S-17303-083104-BW-510*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**1.70[e]**	-	-	-	**52[efi]**	**55[efi]**	**44.1[efi]**	**64.5[efi]**	**4.16[e]**	0.02 J
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-114*	*SB18-114*	*SB18-115*	*SB18-115*	*SB18-116*	*SB18-116*	*SB18-117*	*SB18-117*	*SB18-117*	*SB18-118*
Sample Depth:		*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*4-6 ft BGS*	*6-7.7 ft BGS*	*9.2-9.2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-082604-BW-498*	*S-17303-082604-BW-499*	*S-17303-082604-BW-500*	*S-17303-082604-BW-501*	*S-17303-082604-BW-502*	*S-17303-082604-BW-503*	*S-17303-083104-BW-507*	*S-17303-083104-BW-508*	*S-17303-083104-BW-509*	*S-17303-083104-BW-510*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	1 U	1 U	1 U	1[i]	1 U	0.7[i]	1.0[i]	0.05 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.02 J	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	1 U	1 U	1 U	1	1 U	1.2	2.0	0.05 U	0.05 U
p-Xylene	mg/kg	0.1 U	2 U	2 U	2 U	4	1 J	4	7[e]	0.1 U	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.6 J	0.8 J	1	0.9 J	2	2.5	4.4	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.88[e]	1 U	116[efi]	40[efi]	73[efi]	-	0.1 J	0.5 U	0.01 J	0.05 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.01 J	11[efi]	15[efi]	17[efi]	2[ei]	1 U	2.4[ei]	8.2[efi]	4.93[efi]	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-114*	*SB18-114*	*SB18-115*	*SB18-115*	*SB18-116*	*SB18-116*	*SB18-117*	*SB18-117*	*SB18-117*	*SB18-118*
Sample Depth:		*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*4-6 ft BGS*	*6-7.7 ft BGS*	*9.2-9.2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-082604-BW-498*	*S-17303-082604-BW-499*	*S-17303-082604-BW-500*	*S-17303-082604-BW-501*	*S-17303-082604-BW-502*	*S-17303-082604-BW-503*	*S-17303-083104-BW-507*	*S-17303-083104-BW-508*	*S-17303-083104-BW-509*	*S-17303-083104-BW-510*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-114***	***SB18-114***	***SB18-115***	***SB18-115***	***SB18-116***	***SB18-116***	***SB18-117***	***SB18-117***	***SB18-117***	***SB18-118***
Sample Depth:		***0-2.5 ft BGS***	***5-5 ft BGS***	***0-2.5 ft BGS***	***5-5 ft BGS***	***0-2.5 ft BGS***	***5-5 ft BGS***	***4-6 ft BGS***	***6-7.7 ft BGS***	***9.2-9.2 ft BGS***	***0-2 ft BGS***
Sample ID:		***S-17303-082604-BW-498***	***S-17303-082604-BW-499***	***S-17303-082604-BW-500***	***S-17303-082604-BW-501***	***S-17303-082604-BW-502***	***S-17303-082604-BW-503***	***S-17303-083104-BW-507***	***S-17303-083104-BW-508***	***S-17303-083104-BW-509***	***S-17303-083104-BW-510***
Sample Date:		***08/26/2004***	***08/26/2004***	***08/26/2004***	***08/26/2004***	***08/26/2004***	***08/26/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-114*	*SB18-114*	*SB18-115*	*SB18-115*	*SB18-116*	*SB18-116*	*SB18-117*	*SB18-117*	*SB18-117*	*SB18-118*
Sample Depth:		*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*0-2.5 ft BGS*	*5-5 ft BGS*	*4-6 ft BGS*	*6-7.7 ft BGS*	*9.2-9.2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-082604-BW-498*	*S-17303-082604-BW-499*	*S-17303-082604-BW-500*	*S-17303-082604-BW-501*	*S-17303-082604-BW-502*	*S-17303-082604-BW-503*	*S-17303-083104-BW-507*	*S-17303-083104-BW-508*	*S-17303-083104-BW-509*	*S-17303-083104-BW-510*
Sample Date:		*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/26/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.33 U	1.5	0.05 J	0.18 J	0.5	0.09 J	0.33 U	0.7	0.33 U	0.33 U
Total PCBs	mg/kg	0.33 U	1.5	0.05 J	0.18 J	0.5	0.09 J	0.33 U	0.7	0.33 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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Sample Location:		*SB18-118*	*SB18-118*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-121*	*SB18-121*	*SB18-121*	*SB18-121*
Sample Depth:		*2-4 ft BGS*	*6-6 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*20-20 ft BGS*
Sample ID:		*S-17303-083104-BW-511*	*S-17303-083104-BW-512*	*S-17303-083104-BW-520*	*S-17303-083104-BW-521*	*S-17303-083104-BW-522*	*S-17303-083104-BW-523*	*S-17303-083104-BW-524*	*S-17303-083104-BW-525*	*S-17303-083104-BW-526*	*S-17303-083104-BW-527*
Sample Date:		*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**2.37[e]**	**115[efi]**	**8.6[e]**	**2.02[e]**	1.21	**4.82[e]**	**2.75[e]**	**2.25[e]**	0.06	0.05 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-118*	*SB18-118*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-121*	*SB18-121*	*SB18-121*	*SB18-121*
Sample Depth:		*2-4 ft BGS*	*6-6 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*20-20 ft BGS*
Sample ID:		*S-17303-083104-BW-511*	*S-17303-083104-BW-512*	*S-17303-083104-BW-520*	*S-17303-083104-BW-521*	*S-17303-083104-BW-522*	*S-17303-083104-BW-523*	*S-17303-083104-BW-524*	*S-17303-083104-BW-525*	*S-17303-083104-BW-526*	*S-17303-083104-BW-527*
Sample Date:		*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	30 U	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Xylene	mg/kg	0.1 U	10 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	5 U	0.06 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**0.17[e]**	**345[cefi]**	**9.1[ei]**	0.05 U	**0.74[e]**	**1.83[e]**	**6.43[ei]**	**3.43[e]**	0.03 J	0.05 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.05 U	**21[efhi]**	0.5 U	**0.67[ei]**	**0.21[e]**	**2.19[ei]**	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-118*	*SB18-118*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-121*	*SB18-121*	*SB18-121*	*SB18-121*
Sample Depth:		*2-4 ft BGS*	*6-6 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*20-20 ft BGS*
Sample ID:		*S-17303-083104-BW-511*	*S-17303-083104-BW-512*	*S-17303-083104-BW-520*	*S-17303-083104-BW-521*	*S-17303-083104-BW-522*	*S-17303-083104-BW-523*	*S-17303-083104-BW-524*	*S-17303-083104-BW-525*	*S-17303-083104-BW-526*	*S-17303-083104-BW-527*
Sample Date:		*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-118***	***SB18-118***	***SB18-119***	***SB18-119***	***SB18-119***	***SB18-119***	***SB18-121***	***SB18-121***	***SB18-121***	***SB18-121***
Sample Depth:		***2-4 ft BGS***	***6-6 ft BGS***	***7.5-10 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***15-15 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***15-17.5 ft BGS***	***20-20 ft BGS***
Sample ID:		***S-17303-083104-BW-511***	***S-17303-083104-BW-512***	***S-17303-083104-BW-520***	***S-17303-083104-BW-521***	***S-17303-083104-BW-522***	***S-17303-083104-BW-523***	***S-17303-083104-BW-524***	***S-17303-083104-BW-525***	***S-17303-083104-BW-526***	***S-17303-083104-BW-527***
Sample Date:		***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***	***08/31/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-118*	*SB18-118*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-119*	*SB18-121*	*SB18-121*	*SB18-121*	*SB18-121*
Sample Depth:		*2-4 ft BGS*	*6-6 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-15 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*20-20 ft BGS*
Sample ID:		*S-17303-083104-BW-511*	*S-17303-083104-BW-512*	*S-17303-083104-BW-520*	*S-17303-083104-BW-521*	*S-17303-083104-BW-522*	*S-17303-083104-BW-523*	*S-17303-083104-BW-524*	*S-17303-083104-BW-525*	*S-17303-083104-BW-526*	*S-17303-083104-BW-527*
Sample Date:		*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*	*08/31/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.26 J	0.33 U	0.33 U	1	0.33 U	0.33 U	6.2	0.33 U	0.33 U	0.33 U
Total PCBs	mg/kg	0.26 J	0.33 U	0.33 U	1	0.33 U	0.33 U	6.2	0.33 U	0.33 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*
Sample Depth:		*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-090104-BW-531*	*S-17303-090104-BW-532*	*S-17303-090104-BW-533*	*S-17303-090104-BW-534*	*S-17303-090104-BW-535*	*S-17303-090104-BW-536*	*S-17303-090104-BW-537*	*S-17303-090104-BW-538*	*S-17303-090104-BW-539*	*S-17303-090104-BW-540*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**5.2**[e]	**18.4**[ei]	**53.0**[efi]	**60**[efi]	0.06	0.06	0.13	0.2 U	0.3	**25.5**[ei]
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*
Sample Depth:		*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-090104-BW-531*	*S-17303-090104-BW-532*	*S-17303-090104-BW-533*	*S-17303-090104-BW-534*	*S-17303-090104-BW-535*	*S-17303-090104-BW-536*	*S-17303-090104-BW-537*	*S-17303-090104-BW-538*	*S-17303-090104-BW-539*	*S-17303-090104-BW-540*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.5 U	0.8[i]	1.2[i]	10 U	0.05 U	0.009 J	0.05 U	0.2 U	0.2 U	1.5[i]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	3 U	3 U	3 U	50 U	0.3 U	0.3 U	0.3 U	1 U	1 U	3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.5 U	0.06 J	0.5 U	10 U	0.05 U	0.02 J	0.05 U	0.2 U	0.2 U	1.6
p-Xylene	mg/kg	1 U	1	1	20 U	0.1 U	0.05 J	0.1 U	0.4 U	0.4 U	7[e]
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.5 U	0.5 U	1.3	10 U	0.05 U	0.02 J	0.05 U	0.2 U	0.2 U	0.6
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	32.4[ei]	56.3[efi]	19.5[ei]	300[cefi]	0.08	3.15[e]	5.44[ei]	5.0[ei]	4.6[ei]	5.2[ei]
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.5 U	0.5 U	0.5 U	10 U	0.05 U	0.05 U	0.05 U	0.2 U	0.2 U	0.6[ei]
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*
Sample Depth:		*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-090104-BW-531*	*S-17303-090104-BW-532*	*S-17303-090104-BW-533*	*S-17303-090104-BW-534*	*S-17303-090104-BW-535*	*S-17303-090104-BW-536*	*S-17303-090104-BW-537*	*S-17303-090104-BW-538*	*S-17303-090104-BW-539*	*S-17303-090104-BW-540*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*
Sample Depth:		*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-090104-BW-531*	*S-17303-090104-BW-532*	*S-17303-090104-BW-533*	*S-17303-090104-BW-534*	*S-17303-090104-BW-535*	*S-17303-090104-BW-536*	*S-17303-090104-BW-537*	*S-17303-090104-BW-538*	*S-17303-090104-BW-539*	*S-17303-090104-BW-540*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-122*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*	*SB18-123*
Sample Depth:		*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*
Sample ID:		*S-17303-090104-BW-531*	*S-17303-090104-BW-532*	*S-17303-090104-BW-533*	*S-17303-090104-BW-534*	*S-17303-090104-BW-535*	*S-17303-090104-BW-536*	*S-17303-090104-BW-537*	*S-17303-090104-BW-538*	*S-17303-090104-BW-539*	*S-17303-090104-BW-540*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	15 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	3.5	3	0.33 U	0.33 U	0.33 U	0.4	2.1	3	90[d]	3.2
Total PCBs	mg/kg	3.5	3	0.33 U	0.33 U	0.33 U	0.4	2.1	3	90[d]	3.2
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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Sample Location:		*SB18-123*	*SB18-123*	*SB18-123*	*SB18-124*	*SB18-124*	*SB18-124*	*SB18-125*	*SB18-125*	*SB18-125*	*SB18-125*
Sample Depth:		*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*20-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*
Sample ID:		*S-17303-090104-BW-541*	*S-17303-090104-BW-542*	*S-17303-090104-BW-543*	*S-17303-090104-BW-548*	*S-17303-090104-BW-549*	*S-17303-090104-BW-550*	*S-17303-090204-BW-555*	*S-17303-090204-BW-556*	*S-17303-090204-BW-557*	*S-17303-090204-BW-558*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	**42.4**[efi]	0.11	**13.0**[ei]	0.4	0.05 U	-	**800**[bcdefhij]	0.93	0.02 J
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-123*	*SB18-123*	*SB18-123*	*SB18-124*	*SB18-124*	*SB18-124*	*SB18-125*	*SB18-125*	*SB18-125*	*SB18-125*
Sample Depth:		*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*20-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*
Sample ID:		*S-17303-090104-BW-541*	*S-17303-090104-BW-542*	*S-17303-090104-BW-543*	*S-17303-090104-BW-548*	*S-17303-090104-BW-549*	*S-17303-090104-BW-550*	*S-17303-090204-BW-555*	*S-17303-090204-BW-556*	*S-17303-090204-BW-557*	*S-17303-090204-BW-558*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	***Units***										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	0.3 U	0.05 U	0.5 U	0.2 U	0.05 U	7.4[ei]	45 J[ei]	0.05 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	1 U	0.3 U	3 U	1 U	0.3 U	3 U	500 U	0.3 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	0.3 U	0.05 U	0.5 U	0.2 U	0.05 U	15.0[e]	77 J[e]	0.05 U	0.05 U
p-Xylene	mg/kg	-	0.5 U	0.05 J	1 U	0.4 U	0.1 U	43[e]	300[defhj]	0.02 J	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	0.3 U	0.05 U	0.5 U	0.2 U	0.05 U	7.7[i]	87 J[ei]	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	0.3[e]	0.05	68.5[efi]	6.9[ei]	0.05 U	249.0[efi]	10800[bcdefhij]	0.83[e]	0.12[e]
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	5.8[efi]	0.05 U	0.5 U	0.3[ei]	0.05 U	1.8[ei]	100 U	2.18[ei]	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-123*	*SB18-123*	*SB18-123*	*SB18-124*	*SB18-124*	*SB18-124*	*SB18-125*	*SB18-125*	*SB18-125*	*SB18-125*
Sample Depth:		*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*20-20 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*
Sample ID:		*S-17303-090104-BW-541*	*S-17303-090104-BW-542*	*S-17303-090104-BW-543*	*S-17303-090104-BW-548*	*S-17303-090104-BW-549*	*S-17303-090104-BW-550*	*S-17303-090204-BW-555*	*S-17303-090204-BW-556*	*S-17303-090204-BW-557*	*S-17303-090204-BW-558*
Sample Date:		*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/01/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/02/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-123***	***SB18-123***	***SB18-123***	***SB18-124***	***SB18-124***	***SB18-124***	***SB18-125***	***SB18-125***	***SB18-125***	***SB18-125***
Sample Depth:		***12.5-15 ft BGS***	***15-17.5 ft BGS***	***17.5-20 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***20-20 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***15-17.5 ft BGS***	***17.5-20 ft BGS***
Sample ID:		***S-17303-090104-BW-541***	***S-17303-090104-BW-542***	***S-17303-090104-BW-543***	***S-17303-090104-BW-548***	***S-17303-090104-BW-549***	***S-17303-090104-BW-550***	***S-17303-090204-BW-555***	***S-17303-090204-BW-556***	***S-17303-090204-BW-557***	***S-17303-090204-BW-558***
Sample Date:		***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/02/2004***	***09/02/2004***	***09/02/2004***	***09/02/2004***
Sample Type:											
Parameter:	***Units***										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-123***	***SB18-123***	***SB18-123***	***SB18-124***	***SB18-124***	***SB18-124***	***SB18-125***	***SB18-125***	***SB18-125***	***SB18-125***
Sample Depth:		***12.5-15 ft BGS***	***15-17.5 ft BGS***	***17.5-20 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***20-20 ft BGS***	***10-12.5 ft BGS***	***12.5-15 ft BGS***	***15-17.5 ft BGS***	***17.5-20 ft BGS***
Sample ID:		***S-17303-090104-BW-541***	***S-17303-090104-BW-542***	***S-17303-090104-BW-543***	***S-17303-090104-BW-548***	***S-17303-090104-BW-549***	***S-17303-090104-BW-550***	***S-17303-090204-BW-555***	***S-17303-090204-BW-556***	***S-17303-090204-BW-557***	***S-17303-090204-BW-558***
Sample Date:		***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/01/2004***	***09/02/2004***	***09/02/2004***	***09/02/2004***	***09/02/2004***
Sample Type:											
Parameter:	***Units***										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	10 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5 U	50 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	**100[d]**	0.4	0.33 U	0.33 U	0.33 U	0.33 U	**26[d]**	**238[d]**	0.13 J	0.4
Total PCBs	mg/kg	**100[d]**	0.4	0.33 U	0.33 U	0.33 U	0.33 U	**26[d]**	**238[d]**	0.13 J	0.4
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-129*	*SB18-129*	*SB18-129*	*SB18-134*	*SB18-134*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-136*
Sample Depth:		*7.5-10 ft BGS*	*17-19 ft BGS*	*20-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-090204-BW-581*	*S-17303-090204-BW-582*	*S-17303-090204-BW-583*	*S-17303-090904-DCR-589*	*S-17303-090904-DCR-590*	*S-17303-090904-DCR-591*	*S-17303-090904-DCR-592*	*S-17303-090904-DCR-593*	*S-17303-090904-DCR-594*	*S-17303-090904-DCR-595*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**4.35**[e]	**8.76**[e]	**45**[efi]	1.13	0.9	0.05 U	0.01 J	**1.82**[e]	0.54	0.05 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-129*	*SB18-129*	*SB18-129*	*SB18-134*	*SB18-134*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-136*
Sample Depth:		*7.5-10 ft BGS*	*17-19 ft BGS*	*20-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-090204-BW-581*	*S-17303-090204-BW-582*	*S-17303-090204-BW-583*	*S-17303-090904-DCR-589*	*S-17303-090904-DCR-590*	*S-17303-090904-DCR-591*	*S-17303-090904-DCR-592*	*S-17303-090904-DCR-593*	*S-17303-090904-DCR-594*	*S-17303-090904-DCR-595*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.16	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.03 J	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	0.3 U	30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.05	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.03 J	0.05 U
p-Xylene	mg/kg	0.1 U	0.3	10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.02 J	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.02 J	0.40	4 J	0.05 U	0.05 U	0.05 U	0.05 U	0.02 J	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.02 J	-	**349[cefi]**	0.05 U	0.02 J	0.05 U	**0.43[e]**	**8.53[ei]**	**3.4[e]**	0.02 J
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	**0.19[e]**	**0.54[ei]**	5 U	**1.06[ei]**	**3.65[efi]**	0.05 U	0.05 U	**0.14[e]**	**0.19[e]**	0.05 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-129*	*SB18-129*	*SB18-129*	*SB18-134*	*SB18-134*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-136*
Sample Depth:		*7.5-10 ft BGS*	*17-19 ft BGS*	*20-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-090204-BW-581*	*S-17303-090204-BW-582*	*S-17303-090204-BW-583*	*S-17303-090904-DCR-589*	*S-17303-090904-DCR-590*	*S-17303-090904-DCR-591*	*S-17303-090904-DCR-592*	*S-17303-090904-DCR-593*	*S-17303-090904-DCR-594*	*S-17303-090904-DCR-595*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-129*	*SB18-129*	*SB18-129*	*SB18-134*	*SB18-134*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-136*
Sample Depth:		*7.5-10 ft BGS*	*17-19 ft BGS*	*20-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-090204-BW-581*	*S-17303-090204-BW-582*	*S-17303-090204-BW-583*	*S-17303-090904-DCR-589*	*S-17303-090904-DCR-590*	*S-17303-090904-DCR-591*	*S-17303-090904-DCR-592*	*S-17303-090904-DCR-593*	*S-17303-090904-DCR-594*	*S-17303-090904-DCR-595*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-129*	*SB18-129*	*SB18-129*	*SB18-134*	*SB18-134*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-135*	*SB18-136*
Sample Depth:		*7.5-10 ft BGS*	*17-19 ft BGS*	*20-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*0-2.5 ft BGS*
Sample ID:		*S-17303-090204-BW-581*	*S-17303-090204-BW-582*	*S-17303-090204-BW-583*	*S-17303-090904-DCR-589*	*S-17303-090904-DCR-590*	*S-17303-090904-DCR-591*	*S-17303-090904-DCR-592*	*S-17303-090904-DCR-593*	*S-17303-090904-DCR-594*	*S-17303-090904-DCR-595*
Sample Date:		*09/02/2004*	*09/02/2004*	*09/02/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	0.33 U	0.33 U	0.33 U	-	-	-	-	-	-	-
Total PCBs	mg/kg	0.33 U	0.33 U	0.33 U	--	--	--	--	--	--	--
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-137*	*SB18-137*	*SB18-137*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*S-17303-090904-DCR-596*	*S-17303-090904-DCR-597*	*S-17303-090904-DCR-598*	*S-17303-090904-DCR-599*	*S-17303-090904-DCR-600*	*S-17303-090904-DCR-601*	*S-17303-090904-DCR-602*	*S-17303-090904-DCR-603*	*S-17303-090904-DCR-604*	*S-17303-090904-DCR-605*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.05 U	0.05 U	**1.55**[e]	**1.96**[e]	0.04 J	0.1	0.05 U	**24.1**[ei]	**93.2**[efi]	0.009 J
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-137*	*SB18-137*	*SB18-137*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*S-17303-090904-DCR-596*	*S-17303-090904-DCR-597*	*S-17303-090904-DCR-598*	*S-17303-090904-DCR-599*	*S-17303-090904-DCR-600*	*S-17303-090904-DCR-601*	*S-17303-090904-DCR-602*	*S-17303-090904-DCR-603*	*S-17303-090904-DCR-604*	*S-17303-090904-DCR-605*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.3 U	0.8 U	0.05 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	4 U	0.3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.3 U	0.8 U	0.05 U
p-Xylene	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	2 U	0.1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.3 U	0.8 U	0.05 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.05 U	**0.19[e]**	**1.3[e]**	**1.4[e]**	0.01 J	0.05 U	0.05 U	0.08 J	**3[e]**	0.05 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.19[e]**	0.05 U	**0.4[ei]**	**15.2[efi]**	**3.86[efi]**
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-137*	*SB18-137*	*SB18-137*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*S-17303-090904-DCR-596*	*S-17303-090904-DCR-597*	*S-17303-090904-DCR-598*	*S-17303-090904-DCR-599*	*S-17303-090904-DCR-600*	*S-17303-090904-DCR-601*	*S-17303-090904-DCR-602*	*S-17303-090904-DCR-603*	*S-17303-090904-DCR-604*	*S-17303-090904-DCR-605*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-137*	*SB18-137*	*SB18-137*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*S-17303-090904-DCR-596*	*S-17303-090904-DCR-597*	*S-17303-090904-DCR-598*	*S-17303-090904-DCR-599*	*S-17303-090904-DCR-600*	*S-17303-090904-DCR-601*	*S-17303-090904-DCR-602*	*S-17303-090904-DCR-603*	*S-17303-090904-DCR-604*	*S-17303-090904-DCR-605*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-136*	*SB18-137*	*SB18-137*	*SB18-137*
Sample Depth:		*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*	*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*
Sample ID:		*S-17303-090904-DCR-596*	*S-17303-090904-DCR-597*	*S-17303-090904-DCR-598*	*S-17303-090904-DCR-599*	*S-17303-090904-DCR-600*	*S-17303-090904-DCR-601*	*S-17303-090904-DCR-602*	*S-17303-090904-DCR-603*	*S-17303-090904-DCR-604*	*S-17303-090904-DCR-605*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-138*	*SB18-138*	*SB18-139*	*SB18-139*	*SB18-139*	*SB18-140*	*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*
Sample ID:		*S-17303-090904-DCR-606*	*S-17303-090904-DCR-607*	*S-17303-090904-DCR-608*	*S-17303-090904-DCR-609*	*S-17303-090904-DCR-610*	*S-17303-091004-DCR-611*	*S-17303-091004-DCR-612*	*S-17303-091004-DCR-613*	*S-17303-091004-DCR-614*	*S-17303-091004-DCR-615*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	**630**[bcefi]	1.24	0.25	0.02 J	**9.13**[e]	0.05	0.05 U	0.05 U	0.05 U	**14.3**[ei]
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-138*	*SB18-138*	*SB18-139*	*SB18-139*	*SB18-139*	*SB18-140*	*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*
Sample ID:		*S-17303-090904-DCR-606*	*S-17303-090904-DCR-607*	*S-17303-090904-DCR-608*	*S-17303-090904-DCR-609*	*S-17303-090904-DCR-610*	*S-17303-091004-DCR-611*	*S-17303-091004-DCR-612*	*S-17303-091004-DCR-613*	*S-17303-091004-DCR-614*	*S-17303-091004-DCR-615*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	**0.8 J[i]**	0.05 U	0.05 U	0.13	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	3 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	1 J	0.05 U	0.05 U	0.16	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
p-Xylene	mg/kg	4 J	0.1 U	0.1 U	0.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	4	0.05 U	0.05 U	0.01 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**126[efi]**	0.05 U	0.05	0.05 U	0.02 J	0.04 J	**0.13[e]**	0.02 J	0.07	**32.7[ei]**
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	**32[cefhi]**	**1.76[ei]**	0.05 U	**0.1[e]**	**3.49[efi]**	**3.44[efi]**	0.05 U	0.05 U	0.05 U	0.5 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-138*	*SB18-138*	*SB18-139*	*SB18-139*	*SB18-139*	*SB18-140*	*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*
Sample ID:		*S-17303-090904-DCR-606*	*S-17303-090904-DCR-607*	*S-17303-090904-DCR-608*	*S-17303-090904-DCR-609*	*S-17303-090904-DCR-610*	*S-17303-091004-DCR-611*	*S-17303-091004-DCR-612*	*S-17303-091004-DCR-613*	*S-17303-091004-DCR-614*	*S-17303-091004-DCR-615*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-138*	*SB18-138*	*SB18-139*	*SB18-139*	*SB18-139*	*SB18-140*	*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*
Sample ID:		*S-17303-090904-DCR-606*	*S-17303-090904-DCR-607*	*S-17303-090904-DCR-608*	*S-17303-090904-DCR-609*	*S-17303-090904-DCR-610*	*S-17303-091004-DCR-611*	*S-17303-091004-DCR-612*	*S-17303-091004-DCR-613*	*S-17303-091004-DCR-614*	*S-17303-091004-DCR-615*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-138*	*SB18-138*	*SB18-139*	*SB18-139*	*SB18-139*	*SB18-140*	*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*
Sample Depth:		*0-2.5 ft BGS*	*2.5-5 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*17.5-20 ft BGS*	*0-2.5 ft BGS*	*2.5-5 ft BGS*	*5-7.5 ft BGS*	*7.5-10 ft BGS*
Sample ID:		*S-17303-090904-DCR-606*	*S-17303-090904-DCR-607*	*S-17303-090904-DCR-608*	*S-17303-090904-DCR-609*	*S-17303-090904-DCR-610*	*S-17303-091004-DCR-611*	*S-17303-091004-DCR-612*	*S-17303-091004-DCR-613*	*S-17303-091004-DCR-614*	*S-17303-091004-DCR-615*
Sample Date:		*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/09/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1221)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1232)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1242)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1248)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1254)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-12(PCB-1260)	mg/kg	-	-	0.33 U	0.33 U	0.33 U	0.33 U	0.7	0.33 U	0.33 U	0.33 U
Total PCBs	mg/kg	--	--	0.33 U	0.33 U	0.33 U	0.33 U	0.7	0.33 U	0.33 U	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*	*TP18-05*	*TP18-05*	*SB18-200*	*SB18-201*	*SB18-201*	*SB18-203*
Sample Depth:		*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*9-9 ft BGS*	*9-9 ft BGS*	*17-18 ft BGS*	*8.5-9.5 ft BGS*	*17-18 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-091004-DCR-616*	*S-17303-091004-DCR-617*	*S-17303-091004-DCR-624*	*S-17303-091004-DCR-625*	*L-17303-090804-BW-584*	*S-17303-090804-BW-585*	*SO-17303-060605-DR-0746*	*SO-17303-060605-DR-0744*	*SO-17303-060605-DR-0745*	*SO-17303-060205-DR-0719*
Sample Date:		*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/08/2004*	*09/08/2004*	*06/06/2005*	*06/06/2005*	*06/06/2005*	*06/02/2005*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	0.68 U	6.4 U	0.72 U	0.56 U
2-Hexanone	mg/kg	-	-	-	-	-	-	2.3 U	21 U	2.4 U	1.9 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	2.3 U	21 U	2.4 U	1.9 U
Acetone	mg/kg	-	-	-	-	-	-	0.68 U	6.4 U	0.72 U	0.56 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	0.091 UJ	0.86 UJ	0.097 UJ	0.074 U
Bromoform	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	0.18 U	1.7 U	0.19 U	0.15 U
Carbon disulfide	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Chlorobenzene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	27.1[ei]	8.7[e]	0.97	0.05 U	-	-	0.017 J	6.8[e]	0.048 U	0.061
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	0.046 UJ	0.43 UJ	0.048 UJ	0.037 U
Cyclohexane	mg/kg	-	-	-	-	-	-	1.1 U	10 U	1.2 U	0.89 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*	*TP18-05*	*TP18-05*	*SB18-200*	*SB18-201*	*SB18-201*	*SB18-203*
Sample Depth:		*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*9-9 ft BGS*	*9-9 ft BGS*	*17-18 ft BGS*	*8.5-9.5 ft BGS*	*17-18 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-091004-DCR-616*	*S-17303-091004-DCR-617*	*S-17303-091004-DCR-624*	*S-17303-091004-DCR-625*	*L-17303-090804-BW-584*	*S-17303-090804-BW-585*	*SO-17303-060605-DR-0746*	*SO-17303-060605-DR-0744*	*SO-17303-060605-DR-0745*	*SO-17303-060205-DR-0719*
Sample Date:		*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/08/2004*	*09/08/2004*	*06/06/2005*	*06/06/2005*	*06/06/2005*	*06/02/2005*
Sample Type:											
Parameter:	*Units*										
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.5 U	0.1 U	0.05 U	0.05 U	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Methyl acetate	mg/kg	-	-	-	-	-	-	1.1 U	10 U	0.063 J	0.89 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	1.1 U	10 U	1.2 U	0.89 U
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Methylene chloride	mg/kg	3 U	0.5 U	0.3 U	0.3 U	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0.5 U	0.1 U	0.05 U	0.05 U	-	-	-	-	-	-
p-Xylene	mg/kg	1 U	0.2 U	0.1 U	0.1 U	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Tetrachloroethene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
Toluene	mg/kg	0.5 U	0.03 J	0.05 U	0.05 U	-	-	0.091 U	0.86 U	0.097 U	0.074 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	0.046 U	0.43 U	0.048 U	0.037 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	69.9 efi	0.3 e	0.03 J	0.04 J	-	-	0.046 U	12 ei	0.074	0.6 e
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	0.091 U	0.86 U	0.097 U	0.074 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	0.23 U	2.1 U	0.24 U	0.19 U
Vinyl chloride	mg/kg	0.5 U	0.8 ei	1.08 ei	0.05 U	-	-	0.036 U	0.34 U	0.12 e	0.03 U
Xylenes (total)	mg/kg	-	-	-	-	-	-	0.14 U	1.3 U	0.14 U	0.11 U
TCLP VOCs											
1,1-Dichloroethene	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	10 U	1 U	-	-	-	-
Benzene	mg/L	-	-	-	-	1 U	0.2 e	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	1 U	0.1 U	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	48 Y efi	7.9 ei	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	5 Y efi	0.7 ei	-	-	-	-
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.15 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*	*TP18-05*	*TP18-05*	*SB18-200*	*SB18-201*	*SB18-201*	*SB18-203*
Sample Depth:		*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*9-9 ft BGS*	*9-9 ft BGS*	*17-18 ft BGS*	*8.5-9.5 ft BGS*	*17-18 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-091004-DCR-616*	*S-17303-091004-DCR-617*	*S-17303-091004-DCR-624*	*S-17303-091004-DCR-625*	*L-17303-090804-BW-584*	*S-17303-090804-BW-585*	*SO-17303-060605-DR-0746*	*SO-17303-060605-DR-0744*	*SO-17303-060605-DR-0745*	*SO-17303-060205-DR-0719*
Sample Date:		*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/08/2004*	*09/08/2004*	*06/06/2005*	*06/06/2005*	*06/06/2005*	*06/02/2005*
Sample Type:											
Parameter:	*Units*										
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	0.2 U
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	1.6 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	0.2 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.15 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	0.15 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	0.2 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.33 U
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	0.04 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	0.08 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	0.027 J
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	0.04 U
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U

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Sample Location:		*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*	*TP18-05*	*TP18-05*	*SB18-200*	*SB18-201*	*SB18-201*	*SB18-203*
Sample Depth:		*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*9-9 ft BGS*	*9-9 ft BGS*	*17-18 ft BGS*	*8.5-9.5 ft BGS*	*17-18 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-091004-DCR-616*	*S-17303-091004-DCR-617*	*S-17303-091004-DCR-624*	*S-17303-091004-DCR-625*	*L-17303-090804-BW-584*	*S-17303-090804-BW-585*	*SO-17303-060605-DR-0746*	*SO-17303-060605-DR-0744*	*SO-17303-060605-DR-0745*	*SO-17303-060205-DR-0719*
Sample Date:		*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/08/2004*	*09/08/2004*	*06/06/2005*	*06/06/2005*	*06/06/2005*	*06/02/2005*
Sample Type:											
Parameter:	*Units*										
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.15 U
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	0.093 J
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	1.6
Barium	mg/kg	-	-	-	-	-	-	-	-	-	12.7
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	0.16 U
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	0.029 J
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	**5.8**[i]
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	2.3
Copper	mg/kg	-	-	-	-	-	-	-	-	-	2.9
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	2.8
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	3.4
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	3.0
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	71.0
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	0.0084 J
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	4.9
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	0.23
Silver	mg/kg	-	-	-	-	-	-	-	-	-	0.015 J
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	0.039 J
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	9.7
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	11.0
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
TCLP Metals											
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-144*	*SB18-144*	*SB18-144*	*SB18-144*	*TP18-05*	*TP18-05*	*SB18-200*	*SB18-201*	*SB18-201*	*SB18-203*
Sample Depth:		*10-12.5 ft BGS*	*12.5-15 ft BGS*	*15-17.5 ft BGS*	*17.5-20 ft BGS*	*9-9 ft BGS*	*9-9 ft BGS*	*17-18 ft BGS*	*8.5-9.5 ft BGS*	*17-18 ft BGS*	*0-3 ft BGS*
Sample ID:		*S-17303-091004-DCR-616*	*S-17303-091004-DCR-617*	*S-17303-091004-DCR-624*	*S-17303-091004-DCR-625*	*L-17303-090804-BW-584*	*S-17303-090804-BW-585*	*SO-17303-060605-DR-0746*	*SO-17303-060605-DR-0744*	*SO-17303-060605-DR-0745*	*SO-17303-060205-DR-0719*
Sample Date:		*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/10/2004*	*09/08/2004*	*09/08/2004*	*06/06/2005*	*06/06/2005*	*06/06/2005*	*06/02/2005*
Sample Type:											
Parameter:	*Units*										
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1221)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1232)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1242)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1248)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1254)	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2 U	-	-	-	0.33 U
Aroclor-12(PCB-1260)	mg/kg	0.33 U	2	0.33 U	0.33 U	0.8	15	-	-	-	0.33 U
Total PCBs	mg/kg	0.33 U	2	0.33 U	0.33 U	0.8	15	--	--	--	0.33 U
Petroleum Hydrocarbons											
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-203***	***SB18-203***	***SB18-203***	***SB18-205***	***SB18-209***	***SB18-210***	***SB18-211***	***SB18-214***	***SB18-218***
Sample Depth:		***3-6 ft BGS***	***6-9 ft BGS***	***9-12 ft BGS***	***18-19 ft BGS***	***2-3 ft BGS***	***1.5-2.5 ft BGS***	***1.5-2.5 ft BGS***	***1-2 ft BGS***	***0-2 ft BGS***
Sample ID:		***SO-17303-060205-DR-0720***	***SO-17303-060205-DR-0721***	***SO-17303-060205-DR-0722***	***SO-17303-060605-DR-0743***	***SO-17303-081105-DR-0872***	***SO-17303-081105-DR-0873***	***SO-17303-081105-DR-0874***	***SO-17303-081105-DR-0875***	***SO-17303-081605-DR-0877***
Sample Date:		***06/02/2005***	***06/02/2005***	***06/02/2005***	***06/06/2005***	***08/11/2005***	***08/11/2005***	***08/11/2005***	***08/11/2005***	***08/16/2005***
Sample Type:										
Parameter:	***Units***									
VOCs										
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,1-Dichloroethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,1-Dichloroethene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-
1,2-Dichloroethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.6 U	12 U	1.2 U	0.68 U	-	-	-	-	-
2-Hexanone	mg/kg	2 U	40 U	4 U	2.3 U	-	-	-	-	-
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2 U	40 U	4 U	2.3 U	-	-	-	-	-
Acetone	mg/kg	0.6 U	12 U	1.2 U	0.68 U	-	-	-	-	-
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.08 U	1.6 U	0.16 U	0.09 UJ	-	-	-	-	-
Bromoform	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	0.16 U	3.2 U	0.32 U	0.18 U	-	-	-	-	-
Carbon disulfide	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Chlorobenzene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.061	**25[ei]**	**1.6[e]**	0.045 U	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 UJ	-	-	-	-	-
Cyclohexane	mg/kg	0.96 U	0.58 J	1.9 U	1.1 U	-	-	-	-	-
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-203*	*SB18-203*	*SB18-203*	*SB18-205*	*SB18-209*	*SB18-210*	*SB18-211*	*SB18-214*	*SB18-218*
Sample Depth:		*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*18-19 ft BGS*	*2-3 ft BGS*	*1.5-2.5 ft BGS*	*1.5-2.5 ft BGS*	*1-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*SO-17303-060205-DR-0720*	*SO-17303-060205-DR-0721*	*SO-17303-060205-DR-0722*	*SO-17303-060605-DR-0743*	*SO-17303-081105-DR-0872*	*SO-17303-081105-DR-0873*	*SO-17303-081105-DR-0874*	*SO-17303-081105-DR-0875*	*SO-17303-081605-DR-0877*
Sample Date:		*06/02/2005*	*06/02/2005*	*06/02/2005*	*06/06/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/16/2005*
Sample Type:										
Parameter:	*Units*									
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.04 U	0.21 J	0.08 U	0.045 U	0.033 J	0.009 J	0.075	0.04 U	0.028 J
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Methyl acetate	mg/kg	0.96 U	19 U	1.9 U	1.1 U	-	-	-	-	-
Methyl cyclohexane	mg/kg	0.96 U	1.1 J	1.9 U	1.1 U	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Methylene chloride	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Tetrachloroethene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
Toluene	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	0.035 J	0.08 U	0.042 J	0.08 U	0.028 J
trans-1,2-Dichloroethene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	0.04 U	0.8 U	0.08 U	0.045 U	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	**0.48[e]**	**7.9[ei]**	**2.4[e]**	0.045 U	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	0.08 U	1.6 U	0.16 U	0.09 U	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/kg	0.2 U	4 U	0.4 U	0.23 U	-	-	-	-	-
Vinyl chloride	mg/kg	0.032 U	0.64 U	0.064 U	0.036 U	-	-	-	-	-
Xylenes (total)	mg/kg	0.12 U	0.44 J	0.24 U	0.14 U	0.17	0.037 J	0.39	0.015 J	0.1 J
TCLP VOCs										
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-
SVOCs										
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.66 U	5.3 U	1.3 U	-	0.26 U	0.26 U	1.1 U	0.26 U	0.26 U
2,4-Dinitrophenol	mg/kg	0.38 U	3 U	0.75 U	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-

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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-203*	*SB18-203*	*SB18-203*	*SB18-205*	*SB18-209*	*SB18-210*	*SB18-211*	*SB18-214*	*SB18-218*
Sample Depth:		*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*18-19 ft BGS*	*2-3 ft BGS*	*1.5-2.5 ft BGS*	*1.5-2.5 ft BGS*	*1-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*SO-17303-060205-DR-0720*	*SO-17303-060205-DR-0721*	*SO-17303-060205-DR-0722*	*SO-17303-060605-DR-0743*	*SO-17303-081105-DR-0872*	*SO-17303-081105-DR-0873*	*SO-17303-081105-DR-0874*	*SO-17303-081105-DR-0875*	*SO-17303-081605-DR-0877*
Sample Date:		*06/02/2005*	*06/02/2005*	*06/02/2005*	*06/06/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/16/2005*
Sample Type:										
Parameter:	*Units*									
2,6-Dinitrotoluene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.66 U	0.69 J	1.3 U	-	0.32	0.056 J	0.63 J	0.039 J	0.065 J
2-Methylphenol	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
2-Nitroaniline	mg/kg	0.5 U	4 U	1 U	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	4 U	32 U	8 U	-	-	-	-	-	-
3-Nitroaniline	mg/kg	0.5 U	4 U	1 U	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	0.38 U	3 U	0.75 U	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
4-Chloroaniline	mg/kg	0.38 U	3 U	0.75 U	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
4-Methylphenol	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
4-Nitroaniline	mg/kg	0.5 U	4 U	1 U	-	-	-	-	-	-
4-Nitrophenol	mg/kg	0.82 U	6.6 U	1.6 U	-	-	-	-	-	-
Acenaphthene	mg/kg	0.66 U	5.3 U	1.3 U	-	0.032 J	0.26 U	1.1 U	0.26 U	0.26 U
Acenaphthylene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Acetophenone	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Anthracene	mg/kg	0.66 U	5.3 U	1.3 U	-	0.26 U	0.26 U	1.1 U	0.26 U	0.26 U
Atrazine	mg/kg	0.1 U	0.8 U	0.2 U	-	-	-	-	-	-
Benzaldehyde	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	0.2 UJ	1.6 U	0.4 U	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Caprolactam	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Carbazole	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Chrysene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.66 U	0.33 J	1.3 U	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	0.66 U	5.3 U	1.3 U	-	0.26 U	0.26 U	1.1 U	0.26 U	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Fluoranthene	mg/kg	0.66 U	5.3 U	1.3 U	-	0.047 J	0.054 J	1.1 U	0.031 J	0.26 U
Fluorene	mg/kg	0.66 U	0.28 J	1.3 U	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1 U	0.8 U	0.2 U	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-203*	*SB18-203*	*SB18-203*	*SB18-205*	*SB18-209*	*SB18-210*	*SB18-211*	*SB18-214*	*SB18-218*
Sample Depth:		*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*18-19 ft BGS*	*2-3 ft BGS*	*1.5-2.5 ft BGS*	*1.5-2.5 ft BGS*	*1-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*SO-17303-060205-DR-0720*	*SO-17303-060205-DR-0721*	*SO-17303-060205-DR-0722*	*SO-17303-060605-DR-0743*	*SO-17303-081105-DR-0872*	*SO-17303-081105-DR-0873*	*SO-17303-081105-DR-0874*	*SO-17303-081105-DR-0875*	*SO-17303-081605-DR-0877*
Sample Date:		*06/02/2005*	*06/02/2005*	*06/02/2005*	*06/06/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/16/2005*
Sample Type:										
Parameter:	*Units*									
Hexachloroethane	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Isophorone	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Naphthalene	mg/kg	0.66 U	5.3 U	1.3 U	-	0.073 J	0.26 U	0.2 J	0.26 U	0.26 U
Nitrobenzene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Pentachlorophenol	mg/kg	0.38 U	3 U	0.75 U	-	-	-	-	-	-
Phenanthrene	mg/kg	0.66 U	0.56 J	1.3 U	-	0.12 J	0.068 J	0.2 J	0.061 J	0.054 J
Phenol	mg/kg	0.66 UJ	5.3 U	1.3 U	-	-	-	-	-	-
Pyrene	mg/kg	0.66 U	5.3 U	1.3 U	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-
Inorganics										
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	0.044 J	R	0.022 J	-	0.013 J	R	R	R	0.021 J
Arsenic	mg/kg	1.6	3.0	4.2	-	-	-	-	-	-
Barium	mg/kg	15.0	21.2	12.1	-	69.7	51.5	63.7	51.5	57.4
Beryllium	mg/kg	0.16 U	0.16 U	0.16 U	-	-	-	-	-	-
Cadmium	mg/kg	0.046 J	0.080 U	0.040 J	-	1.0 J	0.46 J	0.61 J	0.59 J	0.42
Calcium	mg/kg	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	**6.4[i]**	**9.9[i]**	**5.4[i]**	-	**13.1[i]**	**12.1[i]**	**12.8[i]**	**11.3[i]**	**11.9[i]**
Cobalt	mg/kg	2.3	4.3	2.7	-	**7.8[ei]**	5.9	**8.3[ei]**	6.6	**8.4[ei]**
Copper	mg/kg	3.2	9.4	6.3	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	2.9	5.6	6.1	-	**30.6 J**	11.9 J	15.9 J	**32.9 J**	13.0
Lead - fine fraction	mg/kg	3.0	5.8	2.4	-	**97.8 J**	**59.6 J**	**87.5 J**	**55.3 J**	**54.7**
Lead - total (calculated by fine/coarse fraction)	mg/kg	3.0	5.8	2.7	-	**45.2 J**	**23.6 J**	**35.1 J**	**39.2 J**	**24.1**
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	84.3	97.5	273	-	354	292	351	325	351
Mercury	mg/kg	0.013 J	0.012 J	0.040 U	-	0.040 U	0.040 U	0.040 U	0.040 U	0.024 J
Nickel	mg/kg	5.0	9.2	6.9	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.15 J	0.15 J	0.097 J	-	**3.1 J[i]**	0.32 UJ	0.39 UJ	0.37 UJ	0.22
Silver	mg/kg	0.027 J	0.037 J	0.030 J	-	0.097	0.10	0.13	0.089	0.062 J
Sodium	mg/kg	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	0.038 J	0.080	0.070 J	-	-	-	-	-	-
Vanadium	mg/kg	9.2	17.5	10.2	-	-	-	-	-	-
Zinc	mg/kg	13.2	21.4	15.4	-	49.5	41.6	48.6	47.1	36.2
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-
TCLP Metals										
Arsenic	mg/L	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-203*	*SB18-203*	*SB18-203*	*SB18-205*	*SB18-209*	*SB18-210*	*SB18-211*	*SB18-214*	*SB18-218*
Sample Depth:		*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*18-19 ft BGS*	*2-3 ft BGS*	*1.5-2.5 ft BGS*	*1.5-2.5 ft BGS*	*1-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*SO-17303-060205-DR-0720*	*SO-17303-060205-DR-0721*	*SO-17303-060205-DR-0722*	*SO-17303-060605-DR-0743*	*SO-17303-081105-DR-0872*	*SO-17303-081105-DR-0873*	*SO-17303-081105-DR-0874*	*SO-17303-081105-DR-0875*	*SO-17303-081605-DR-0877*
Sample Date:		*06/02/2005*	*06/02/2005*	*06/02/2005*	*06/06/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/16/2005*
Sample Type:										
Parameter:	*Units*									
Chromium	mg/L	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-
PCBs										
Aroclor-10(PCB-1016)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1221)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1232)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1242)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1248)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.031 J	0.15 J	0.13 J	0.046 J	0.26 U
Aroclor-12(PCB-1254)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.26 U	0.26 U	0.26 U	0.26 U	0.014 J
Aroclor-12(PCB-1260)	mg/kg	1.6 U	1.6 U	0.26 UJ	-	0.0098 J	0.043 J	0.038 J	0.019 J	0.26 U
Total PCBs	mg/kg	1.6 U	1.6 U	0.26 UJ	--	0.0408 J	0.193 J	0.168 J	0.065 J	0.014 J
Petroleum Hydrocarbons										
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-218*	*SB18-219*	*GS-6*	*TP-A39*	*TP-A60*	*TP-C*	*TRENCH 1*	*TRENCH 1*
Sample Depth:		*0-2 ft BGS*	*0-2 ft BGS*	*2.5-3 ft BGS*	*11-11 ft BGS*	*12-12 ft BGS*	*11-11 ft BGS*	*10.2-10.2 ft BGS*	*12.5-12.5 ft BGS*
Sample ID:		*SO-17303-081605-DR-0878*	*SO-17303-081605-DR-0879*	*SO-17303-052405-DR-0701*	*SO-17303-061405-BW-0774*	*SO-17303-061405-BW-0773*	*SO-17303-061305-BW-0770*	*SO-17303-061305-BW-0771*	*SO-17303-061405-BW-0775*
Sample Date:		*08/16/2005*	*08/16/2005*	*05/24/2005*	*06/14/2005*	*06/14/2005*	*06/13/2005*	*06/13/2005*	*06/14/2005*
Sample Type:		*Duplicate*							
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,1,2,2-Tetrachloroethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,1,2-Trichloroethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,1-Dichloroethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,1-Dichloroethene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	22 U	78[ci]	0.19 U	0.75 U	1.6 U	40 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
1,2-Dichlorobenzene	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U
1,2-Dichloroethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	67 U	100 U	0.58 U	2.2 U	4.6 U	120 U
2-Hexanone	mg/kg	-	-	220 U	330 U	1.9 U	7.5 U	16 U	400 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	220 U	330 U	1.9 U	7.5 U	16 U	400 U
Acetone	mg/kg	-	-	67 U	100 U	0.58 U	2.2 U	4.6 U	120 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	4.5 U	2.1 J[e]	0.039 U	0.15 U	0.091 J	8 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	9 UJ	13 UJ	0.078 UJ	0.3 U	0.62 U	16 UJ
Bromoform	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U
Bromomethane (Methyl bromide)	mg/kg	-	-	18 U	27 U	0.16 U	0.6 U	1.2 U	32 U
Carbon disulfide	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
Carbon tetrachloride	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Chlorobenzene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
Chloroform (Trichloromethane)	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Chloromethane (Methyl chloride)	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
cis-1,2-Dichloroethene	mg/kg	-	-	4.5 U	18[ci]	0.039 U	0.18 U	13[ci]	6.5 J[e]
cis-1,3-Dichloropropene	mg/kg	-	-	4.5 UJ	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Cyclohexane	mg/kg	-	-	14 J	14 J	0.93 U	3.6 U	0.44 J	190 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***SB18-218***	***SB18-219***	***GS-6***	***TP-A39***	***TP-A60***	***TP-C***	***TRENCH 1***	***TRENCH 1***
Sample Depth:		***0-2 ft BGS***	***0-2 ft BGS***	***2.5-3 ft BGS***	***11-11 ft BGS***	***12-12 ft BGS***	***11-11 ft BGS***	***10.2-10.2 ft BGS***	***12.5-12.5 ft BGS***
Sample ID:		***SO-17303-081605-DR-0878***	***SO-17303-081605-DR-0879***	***SO-17303-052405-DR-0701***	***SO-17303-061405-BW-0774***	***SO-17303-061405-BW-0773***	***SO-17303-061305-BW-0770***	***SO-17303-061305-BW-0771***	***SO-17303-061405-BW-0775***
Sample Date:		***08/16/2005***	***08/16/2005***	***05/24/2005***	***06/14/2005***	***06/14/2005***	***06/13/2005***	***06/13/2005***	***06/14/2005***
Sample Type:		***Duplicate***							
Parameter:	***Units***								
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.028 J	0.017 J	76[ei]	100[ei]	0.039 U	0.15 U	0.49[i]	8 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	44[i]	13 J[i]	0.19 U	0.75 U	0.38 J	40 U
Methyl acetate	mg/kg	-	-	110 U	160 U	0.93 U	3.6 U	7.4 U	190 U
Methyl cyclohexane	mg/kg	-	-	61 J	42 J	0.93 U	3.6 U	0.32 J	190 U
Methyl tert butyl ether (MTBE)	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
Methylene chloride	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Tetrachloroethene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
Toluene	mg/kg	0.018 J	0.013 J	49[ei]	37[ei]	0.078 U	0.3 U	0.51 J	16 U
trans-1,2-Dichloroethene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
trans-1,3-Dichloropropene	mg/kg	-	-	4.5 U	6.7 U	0.039 U	0.15 U	0.31 U	8 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	4.5 U	6.7 U	1.5[e]	5.4[ei]	2.7[e]	270[cefi]
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	9 U	13 U	0.078 U	0.3 U	0.62 U	16 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	22 U	33 U	0.19 U	0.75 U	1.6 U	40 U
Vinyl chloride	mg/kg	-	-	3.6 U	86[cdefhi]	0.031 U	0.12 U	3.5[efi]	6.4 U
Xylenes (total)	mg/kg	0.098 J	0.05 J	400[defhij]	690[defhij]	0.12 U	0.15 J	1.6[i]	24 U
TCLP VOCs									
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	-	-	-	-	-
Benzene	mg/L	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-
SVOCs									
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2,4,5-Trichlorophenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2,4,6-Trichlorophenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2,4-Dichlorophenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2,4-Dimethylphenol	mg/kg	0.26 U	0.26 U	89 J[ei]	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2,4-Dinitrophenol	mg/kg	-	-	140 U	1 U	0.15 U	0.15 U	0.15 U	0.3 U
2,4-Dinitrotoluene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-218*	*SB18-219*	*GS-6*	*TP-A39*	*TP-A60*	*TP-C*	*TRENCH 1*	*TRENCH 1*
Sample Depth:		*0-2 ft BGS*	*0-2 ft BGS*	*2.5-3 ft BGS*	*11-11 ft BGS*	*12-12 ft BGS*	*11-11 ft BGS*	*10.2-10.2 ft BGS*	*12.5-12.5 ft BGS*
Sample ID:		*SO-17303-081605-DR-0878*	*SO-17303-081605-DR-0879*	*SO-17303-052405-DR-0701*	*SO-17303-061405-BW-0774*	*SO-17303-061405-BW-0773*	*SO-17303-061305-BW-0770*	*SO-17303-061305-BW-0771*	*SO-17303-061405-BW-0775*
Sample Date:		*08/16/2005*	*08/16/2005*	*05/24/2005*	*06/14/2005*	*06/14/2005*	*06/13/2005*	*06/13/2005*	*06/14/2005*
Sample Type:		*Duplicate*							
Parameter:	*Units*								
2,6-Dinitrotoluene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2-Chloronaphthalene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2-Chlorophenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2-Methylnaphthalene	mg/kg	0.079 J	0.26 U	1300[ei]	0.63 J	0.26 U	0.26 U	0.26 U	0.53 U
2-Methylphenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
2-Nitroaniline	mg/kg	-	-	190 U	1.3 U	0.2 U	0.2 U	0.2 U	0.4 U
2-Nitrophenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	1500 U	11 U	1.6 U	1.6 U	1.6 U	3.2 U
3-Nitroaniline	mg/kg	-	-	190 U	1.3 U	0.2 U	0.2 U	0.2 U	0.4 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	140 U	1 U	0.15 U	0.15 U	0.15 U	0.3 U
4-Bromophenyl phenyl ether	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
4-Chloro-3-methylphenol	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
4-Chloroaniline	mg/kg	-	-	140 U	1 U	0.15 U	0.15 U	0.15 U	0.3 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
4-Methylphenol	mg/kg	-	-	250 U	0.15 J#	0.26 U	0.26 U	0.26 U	0.53 U
4-Nitroaniline	mg/kg	-	-	190 U	1.3 U	0.2 U	0.2 U	0.2 U	0.4 U
4-Nitrophenol	mg/kg	-	-	320 U	2.2 U	0.33 U	0.33 U	0.33 U	0.66 U
Acenaphthene	mg/kg	0.26 U	0.26 U	73 J[i]	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Acenaphthylene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Acetophenone	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Anthracene	mg/kg	0.26 U	0.26 U	68 J[eh]	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Atrazine	mg/kg	-	-	38 U	0.27 U	0.04 U	0.04 U	0.04 U	0.08 U
Benzaldehyde	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Benzo(a)anthracene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Benzo(a)pyrene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Benzo(b)fluoranthene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Benzo(g,h,i)perylene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Benzo(k)fluoranthene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	130 J	0.11 J	0.26 U	0.26 U	0.26 U	0.53 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
bis(2-Chloroethyl)ether	mg/kg	-	-	77 U	0.53 U	0.08 U	0.08 U	0.08 U	0.16 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Caprolactam	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Carbazole	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Chrysene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Dibenz(a,h)anthracene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Dibenzofuran	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Diethyl phthalate	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Dimethyl phthalate	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Di-n-butylphthalate (DBP)	mg/kg	0.26 U	0.26 U	26 J[i]	4.7	0.26 U	0.26 U	0.26 U	0.53 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Fluoranthene	mg/kg	0.014 J	0.036 J	29 J[i]	0.13 J	0.26 U	0.26 U	0.26 U	0.53 U
Fluorene	mg/kg	-	-	250 U	0.09 J	0.26 U	0.26 U	0.26 U	0.53 U
Hexachlorobenzene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Hexachlorobutadiene	mg/kg	-	-	38 U	0.27 U	0.04 U	0.04 U	0.04 U	0.08 U
Hexachlorocyclopentadiene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-218*	*SB18-219*	*GS-6*	*TP-A39*	*TP-A60*	*TP-C*	*TRENCH 1*	*TRENCH 1*
Sample Depth:		*0-2 ft BGS*	*0-2 ft BGS*	*2.5-3 ft BGS*	*11-11 ft BGS*	*12-12 ft BGS*	*11-11 ft BGS*	*10.2-10.2 ft BGS*	*12.5-12.5 ft BGS*
Sample ID:		*SO-17303-081605-DR-0878*	*SO-17303-081605-DR-0879*	*SO-17303-052405-DR-0701*	*SO-17303-061405-BW-0774*	*SO-17303-061405-BW-0773*	*SO-17303-061305-BW-0770*	*SO-17303-061305-BW-0771*	*SO-17303-061405-BW-0775*
Sample Date:		*08/16/2005*	*08/16/2005*	*05/24/2005*	*06/14/2005*	*06/14/2005*	*06/13/2005*	*06/13/2005*	*06/14/2005*
Sample Type:		*Duplicate*							
Parameter:	*Units*								
Hexachloroethane	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Isophorone	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Naphthalene	mg/kg	0.022 J	0.015 J	330 ei	0.65 J	0.26 U	0.26 U	0.26 U	0.054 J
Nitrobenzene	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
N-Nitrosodiphenylamine	mg/kg	-	-	250 U	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Pentachlorophenol	mg/kg	-	-	140 U	1 U	0.15 U	0.15 U	0.15 U	0.3 U
Phenanthrene	mg/kg	0.074 J	0.06 J	170 J ei	0.5 J	0.26 U	0.26 U	0.26 U	0.53 U
Phenol	mg/kg	-	-	250 U	0.34 J	0.26 U	0.26 U	0.26 U	0.53 U
Pyrene	mg/kg	-	-	25 J	1.8 U	0.26 U	0.26 U	0.26 U	0.53 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-
Inorganics									
Aluminum	mg/kg	-	-	-	-	-	-	-	-
Antimony	mg/kg	0.017 J	0.026 J	8.0 J e	0.055 J	0.052 J	0.071 J	0.032 J	0.048 J
Arsenic	mg/kg	-	-	12.3 J ei	0.76 J	6.0 J ei	9.1 J ei	2.0 J	2.0 J
Barium	mg/kg	47.9	55.5	10100 ei	4.3	41.2	22.1	36.5	58.3
Beryllium	mg/kg	-	-	0.19 U	0.13 J	0.57	0.27	0.45	0.64
Cadmium	mg/kg	0.35	0.45	613 ei	0.086	0.26	0.20	0.20	0.24
Calcium	mg/kg	-	-	-	-	-	-	-	-
Chromium	mg/kg	10.1 i	10.8 i	536 egi	16.1 i	16.1 i	8.3 i	12.6 i	20.9 i
Cobalt	mg/kg	7.1 ei	7.3 ei	80.6 J ei	1.7	7.3 ei	4.1	6.3	9.1 ei
Copper	mg/kg	-	-	122	4.5	17.1	10.3	15.8	20.8
Iron	mg/kg	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	12.8	38.9	10800 dei	6.5	10.5	10.4	9.6	10.9
Lead - fine fraction	mg/kg	32.3	29.4	11900 dei	5.6	29.0	12.1	14.0	24.1
Lead - total (calculated by fine/coarse fraction)	mg/kg	17.8	37.2	10800 dei	6.5	14.6	11.9	12.2	13.7
Magnesium	mg/kg	-	-	-	-	-	-	-	-
Manganese	mg/kg	348	313	471 ei	93.5	247	124 J	272 J	372
Mercury	mg/kg	0.027 J	0.023 J	0.23 J i	0.022 J	0.030 J	0.0059 J	0.0081 J	0.031 J
Nickel	mg/kg	-	-	32.7 J	3.1	20.2	10.7	18.1	27.2
Potassium	mg/kg	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.16	0.21	14.8 J ei	0.10 J	0.16 UJ	0.38	0.16 U	0.23 J
Silver	mg/kg	0.060 J	0.063 J	0.39 J	0.080 UJ	0.052 J	0.049 J	0.053 J	0.051 J
Sodium	mg/kg	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	0.048 J	0.021 J	0.22 J	0.16	0.21	0.20 J
Vanadium	mg/kg	-	-	19.9	5.4	22.9	12.2	17.9	23.8
Zinc	mg/kg	35.4	39.9	1570 i	16.4	38.8	27.2	37.3	34.9
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-
TCLP Metals									
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-

APPENDIX F.1B

PAOC 18 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*SB18-218*	*SB18-219*	*GS-6*	*TP-A39*	*TP-A60*	*TP-C*	*TRENCH 1*	*TRENCH 1*
Sample Depth:		*0-2 ft BGS*	*0-2 ft BGS*	*2.5-3 ft BGS*	*11-11 ft BGS*	*12-12 ft BGS*	*11-11 ft BGS*	*10.2-10.2 ft BGS*	*12.5-12.5 ft BGS*
Sample ID:		*SO-17303-081605-DR-0878*	*SO-17303-081605-DR-0879*	*SO-17303-052405-DR-0701*	*SO-17303-061405-BW-0774*	*SO-17303-061405-BW-0773*	*SO-17303-061305-BW-0770*	*SO-17303-061305-BW-0771*	*SO-17303-061405-BW-0775*
Sample Date:		*08/16/2005*	*08/16/2005*	*05/24/2005*	*06/14/2005*	*06/14/2005*	*06/13/2005*	*06/13/2005*	*06/14/2005*
Sample Type:		*Duplicate*							
Parameter:	*Units*								
Chromium	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-
PCBs									
Aroclor-10(PCB-1016)	mg/kg	0.26 U	0.26 U	0.32 U	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1221)	mg/kg	0.26 U	0.26 U	0.32 U	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1232)	mg/kg	0.26 U	0.26 U	0.32 U	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1242)	mg/kg	0.26 U	0.26 U	0.32 U	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1248)	mg/kg	0.26 U	0.26 U	0.44	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1254)	mg/kg	0.0079 J	0.0091 J	0.32 U	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1260)	mg/kg	0.26 U	0.26 U	2.9	55[d]	0.022 J	0.26 U	0.26 U	0.26 U
Total PCBs	mg/kg	0.0079 J	0.0091 J	3.3	55[d]	0.26 U	0.26 U	0.26 U	0.26 U
Petroleum Hydrocarbons									
Total Petroleum Hydrocarbons - Extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C14) GRO	mg/kg	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
ID - Insufficient data to develop criterion
J - The associated value is qualified as an estimated quantity.
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - The data is qualified as unusable. (Note: Analyte may or may not be present).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ - The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile oil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact ProtectionCriteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 23*	*PAOC 23*
Sample Location:													*BH12-99*	*MW19-10*
Sample Depth:													*-*	*7.4-9.4 ft BGS*
Sample ID:													*S-1190511-111699-SN-013*	*S-17303-111903-DD-218*
Sample Date:													*11/16/1999*	*11/19/2003*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
VOCs														
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID	440	-	-
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8	460	-	0.37 U
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6	870	0.1 U	0.73 U
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6	920	0.05 U	0.37 U
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15	890	-	0.37 U
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	0.19[e]	0.37 U
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830		830	-	-
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100	-	1.8 U
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57	110	0.1 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2	-	1.8 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11	890	-	1.8 U
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28	210	0.1 U	0.73 U
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2	1200	-	0.37 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6	550	-	0.37 U
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1	94	0.1 U	-
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68	170	0.1 U	0.73 U
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18	620	-	-
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36	-	0.1 U	0.73 U
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220		7300	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	-	5.5 U
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID	2500	-	18 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID	2700	-	18 U
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34	110000	-	5.5 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4	400	0.083	0.37 U
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360		760	-	-
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID	1500	-	0.73 U
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID	870	-	0.73 U
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7	2200	-	1.8 U
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID	280	-	1.8 U
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	-	0.37 U
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	-	0.37 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22	950	-	1.8 U
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	-	0.37 U
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID	1100	-	1.8 U
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	17[ei]	0.37 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	0.37 U
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	0.27 J
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000		220000	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID	610	-	0.37 U
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000		2000	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID	1000	-	0.73 U
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID	7400	-	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	0.05 U	3.5[ei]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2	390	-	1.3 J
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	8.8 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	3 J
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140	5900	-	1.8 U
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30	2300	-	1.8 U
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	0.25 U	-
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID	10000	0.1 U	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile oil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact ProtectionCriteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 23* *BH12-99* *-* *S-1190511-111699-SN-013* *11/16/1999*	*PAOC 23* *MW19-10* *7.4-9.4 ft BGS* *S-17303-111903-DD-218* *11/19/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1	520	-	0.37 U
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	-	0.37 U
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	0.05 U	1.3
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30	1400	0.26	0.37 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	0.37 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	5[ei]	0.37 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560		560	-	0.73 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7	550	-	1.8 U
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	2[ei]	0.33 J[ei]
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	0.15 U	16[ei]
SVOCs														
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	-	-
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	-	-
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33	1800	-	-
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300		-	-	-
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36	19000	-	-
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	-	-
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID	-	-	-
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190		-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	-	-
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	-	-
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID	1100	-	-
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41		29000000	41	ID	-	-	-
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	-	-
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	-	-
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1	2200	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL	10000	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120	310	-	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile oil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact ProtectionCriteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 23*	*PAOC 23*
Sample Location:													*BH12-99*	*MW19-10*
Sample Depth:													*-*	*7.4-9.4 ft BGS*
Sample ID:													*S-1190511-111699-SN-013*	*S-17303-111903-DD-218*
Sample Date:													*11/16/1999*	*11/19/2003*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000			-	-	-
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-	-	-
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	-	-
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7	-	-	-
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2	740	-	-
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790		790	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID	140000	-	-
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730		4100000	730	5.5	-	-	-
Fluorene	mg/kg	-	150000	150000	150000	87000	890		4100000	890	5.3	-	-	-
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	-	-
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091	350	-	-
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID	720	-	-
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6	490	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2		1500	-	-
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700		-	-	-
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	-	-
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	-	-
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	-	-
Pyrene	mg/kg	-	780000	780000	780000	84000	480		2900000	480	ID	-	-	-
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-	-
Inorganics														
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID			-	-	-
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-	-	-
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-	-	-
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000		1250	-	-	-
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590		948	-	-	-
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-	-	-
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-	-	-
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000		167	-	-	-
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID			-	-	-
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Magnesium	mg/kg	-	NLV	NLV	NLV		22000	NLV	2900000			-	-	-
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-	-	-
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05	-	-	-
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000		166	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-	-	-
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-	-	-
Sodium	mg/kg	-	NLV	NLV	NLV		7000	NLV	ID			-	-	-
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-	-	-
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID		190	-	-	-
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID		377	-	-	-
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	-	-
PCBs														

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater Contact*	*Groundwater Surface*	*Soil Saturation*	*PAOC 23*	*PAOC 23*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter Source Thickness*	*Finite VSIC for 5 Meter Source Thickness*	*Infinite Source Volatile oil Inhalation Criteria (VSIC)*	*Direct Contact Criteria*	*Drinking Water Protection Criteria*	*Soil Volatilization to Indoor Air Inhalation Criteria*	*Particulate Soil Inhalation Criteria*	*ProtectionCriteria*	*Water Interface Protection Criteria*	*Concentration Screening Levels*	*BH12-99*	*MW19-10*
Sample Depth:													*-*	*7.4-9.4 ft BGS*
Sample ID:													*S-1190511-111699-SN-013*	*S-17303-111903-DD-218*
Sample Date:													*11/16/1999*	*11/19/2003*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statwide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 19*
Sample Location:		*SB-1-03*	*SB-1-03*	*SB-1-03*	*SB-2-03*	*SB-2-03*	*SB-2-03*	*SB-3-03*	*SB-3-03*	*SB-3-03*	*TP19-01*	*TP19-02*	*TP19-05*
Sample Depth:		*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*4-5 ft BGS*	*6-8 ft BGS*	*13-15 ft BGS*	*0-11 ft BGS*	*-*	*-*
Sample ID:		*S-17303-030703-MM-157*	*S-17303-030703-MM-158*	*S-17303-030703-MM-159*	*S-17303-030703-MM-160*	*S-17303-030703-MM-161*	*S-17303-030703-MM-162*	*S-17303-030703-MM-163*	*S-17303-030703-MM-164*	*S-17303-030703-MM-165*	*SO-17303-MA-060403-198*	*SO-17303-MA-060303-194*	*SO-17303-MA-060403-196*
Sample Date:		*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*06/04/2003*	*06/03/2003*	*06/04/2003*
Sample Type:													
Parameter:	*Units*												
VOCs													
1,1,1,2-Tetrachloroethane	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
1,1,1-Trichloroethane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,1,2,2-Tetrachloroethane	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
1,1,2-Trichloroethane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,1-Dichloroethane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,1-Dichloroethene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,2,3-Trichloropropane	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
1,2,4-Trimethylbenzene	mg/kg	0.28 U	**1.1[i]**	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	0.32 U	0.27 U	0.32 U
1,2-Dichlorobenzene	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
1,2-Dichloroethane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	0.065 U	0.15	0.064 U
1,2-Dichloropropane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
1,3,5-Trimethylbenzene	mg/kg	0.28 U	0.45	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
1,3-Dichlorobenzene	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	0.065 U	0.055 U	0.064 U
1,4-Dichlorobenzene	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
1-Chloro-2,3-epoxypropane	mg/kg	1.4 U	1.4 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.83 U	0.82 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.97 U	0.82 U	0.96 U
2-Hexanone	mg/kg	2.8 U	2.7 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.2 U	2.7 U	3.2 U
2-Nitropropane	mg/kg	1.1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.8 U	2.7 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.2 U	2.7 U	3.2 U
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	0.97 U	0.82 U	0.96 U
alpha-Methylstyrene	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	**0.25[e]**	0.055 U	0.064 U
Bromobenzene	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
Bromodichloromethane	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
Bromoform	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
Bromomethane (Methyl bromide)	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
Carbon disulfide	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
Carbon tetrachloride	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Chlorobenzene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Chlorobromomethane	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
Chloroethane	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
Chloroform (Trichloromethane)	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Chloromethane (Methyl chloride)	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
cis-1,2-Dichloroethene	mg/kg	0.14	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.15	0.064 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	0.065 U	0.055 U	0.064 U
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	1.6 U	1.3 U	1.5 U
Cyclohexanone	mg/kg	28 U	27 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	0.28 U	0.19 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
Dibromochloromethane	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Dibromomethane	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	0.13 U	0.11 U	0.13 U
Ethyl ether	mg/kg	1.1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	-	-	-
Ethylbenzene	mg/kg	0.055 U	0.13	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**4.4[ei]**	0.055 U	0.064 U
Iodomethane	mg/kg	0.55 U	0.55 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	-	-
Isopropyl benzene	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.17 J	**4.9[i]**	0.27 U	0.32 U
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	1.6 U	1.3 U	1.5 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	1.4	0.55 U	0.64 U
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	0.32 U	0.27 U	0.32 U
Methylene chloride	mg/kg	0.28 U	0.27 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.32 U	0.27 U	0.32 U
Naphthalene	mg/kg	0.28 U	0.55	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-
N-Propylbenzene	mg/kg	0.28 U	0.2 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 19*
Sample Location:		*SB-1-03*	*SB-1-03*	*SB-1-03*	*SB-2-03*	*SB-2-03*	*SB-2-03*	*SB-3-03*	*SB-3-03*	*SB-3-03*	*TP19-01*	*TP19-02*	*TP19-05*
Sample Depth:		*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*4-5 ft BGS*	*6-8 ft BGS*	*13-15 ft BGS*	*0-11 ft BGS*	*-*	*-*
Sample ID:		*S-17303-030703-MM-157*	*S-17303-030703-MM-158*	*S-17303-030703-MM-159*	*S-17303-030703-MM-160*	*S-17303-030703-MM-161*	*S-17303-030703-MM-162*	*S-17303-030703-MM-163*	*S-17303-030703-MM-164*	*S-17303-030703-MM-165*	*SO-17303-MA-060403-198*	*SO-17303-MA-060303-194*	*SO-17303-MA-060403-196*
Sample Date:		*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*06/04/2003*	*06/03/2003*	*06/04/2003*
Sample Type:													
Parameter:	*Units*												
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Tetrachloroethene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
Toluene	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
trans-1,2-Dichloroethene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
trans-1,3-Dichloropropene	mg/kg	0.055 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065 U	0.055 U	0.064 U
trans-1,4-Dichloro-2-butene	mg/kg	5.5 U	5.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-	-	-
Trichloroethene	mg/kg	0.12[e]	0.055 U	0.05 U	0.05 U	0.34[e]	0.05 U	0.05 U	0.68[e]	0.05 U	0.065 U	1.8[e]	1.4[e]
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	0.13 U	0.11 U	0.13 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	-	-	-	-	-	-	-	-	0.32 U	0.27 U	0.32 U
Vinyl chloride	mg/kg	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11 U	0.13 U
Xylenes (total)	mg/kg	0.17 U	0.16 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19 U	0.16 U	0.19 U
SVOCs													
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	3.3	0.42 U
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	2.6 U	4.4 U	2.6 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	2.2 U	3.7 U	2.2 U
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	20[i]	0.42 U
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	26	0.42 U
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	0.19 U	0.33 U	0.19 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	47	0.42 U
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	41[d]	0.42 U
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	53	0.42 U
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	24	0.42 U
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	24	0.42 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	1.1	0.42 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	0.13 U	0.22 U	0.13 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 19*
Sample Location:		*SB-1-03*	*SB-1-03*	*SB-1-03*	*SB-2-03*	*SB-2-03*	*SB-2-03*	*SB-3-03*	*SB-3-03*	*SB-3-03*	*TP19-01*	*TP19-02*	*TP19-05*
Sample Depth:		*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*2-4 ft BGS*	*8-10 ft BGS*	*13-15 ft BGS*	*4-5 ft BGS*	*6-8 ft BGS*	*13-15 ft BGS*	*0-11 ft BGS*	*-*	*-*
Sample ID:		*S-17303-030703-MM-157*	*S-17303-030703-MM-158*	*S-17303-030703-MM-159*	*S-17303-030703-MM-160*	*S-17303-030703-MM-161*	*S-17303-030703-MM-162*	*S-17303-030703-MM-163*	*S-17303-030703-MM-164*	*S-17303-030703-MM-165*	*SO-17303-MA-060403-198*	*SO-17303-MA-060303-194*	*SO-17303-MA-060403-196*
Sample Date:		*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*03/07/2003*	*06/04/2003*	*06/03/2003*	*06/04/2003*
Sample Type:													
Parameter:	***Units***												
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	14 U	0.42 U
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	41	0.42 U
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	14 U	0.42 U
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	14 U	0.42 U
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	98[i]	0.42 U
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	15[i]	0.42 U
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	18	0.42 U
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	14 U	0.42 U
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U	0.44 U	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	1 U	1.8 U	1 U
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	1.1	94[i]	0.42 U
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.72 U	0.42 U
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	83	0.42 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	-	0.42 U
Inorganics													
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	945	2970	2620
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	3.37	29.6[e]	8.78[e]
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	0.61 J	3.05 J	1.81 J
Barium	mg/kg	-	-	-	-	-	-	-	-	-	4.83 J	28.5 J	15.9 J
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	0.26 UJ	0.22 U	0.26 UJ
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	0.065 UJ	0.871 J	0.409 J
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	36800	1100 U	20000
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	8.98[i]	35.4[ei]	27.2[i]
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	1.26	2.3	2.45
Copper	mg/kg	-	-	-	-	-	-	-	-	-	1.5 J	11.5 J	6.47 J
Iron	mg/kg	-	-	-	-	-	-	-	-	-	2800	8720	5990
Lead	mg/kg	-	-	-	-	-	-	-	-	-	1.7	969[dc]	15.1
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	6850	7780	4530
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	94.6	180	173
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	0.13 U	0.11 U	0.13 U
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	3.23	6.14	6.37
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	260 U	220 U	299
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	0.26 U	0.22 U	0.26 U
Silver	mg/kg	-	-	-	-	-	-	-	-	-	0.65 UJ	0.55 UJ	0.64 UJ
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	238 J	222 J	64 UJ
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	1.32	6.47[ei]	4.43[ei]
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	4.78	8.54	8.56
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	10.4	72.9	49.2
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 19*
Sample Location:		***SB-1-03***	***SB-1-03***	***SB-1-03***	***SB-2-03***	***SB-2-03***	***SB-2-03***	***SB-3-03***	***SB-3-03***	***SB-3-03***	***TP19-01***	***TP19-02***	***TP19-05***
Sample Depth:		***2-4 ft BGS***	***8-10 ft BGS***	***13-15 ft BGS***	***2-4 ft BGS***	***8-10 ft BGS***	***13-15 ft BGS***	***4-5 ft BGS***	***6-8 ft BGS***	***13-15 ft BGS***	***0-11 ft BGS***	***-***	***-***
Sample ID:		***S-17303-030703-MM-157***	***S-17303-030703-MM-158***	***S-17303-030703-MM-159***	***S-17303-030703-MM-160***	***S-17303-030703-MM-161***	***S-17303-030703-MM-162***	***S-17303-030703-MM-163***	***S-17303-030703-MM-164***	***S-17303-030703-MM-165***	***SO-17303-MA-060403-198***	***SO-17303-MA-060303-194***	***SO-17303-MA-060403-196***
Sample Date:		***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***03/07/2003***	***06/04/2003***	***06/03/2003***	***06/04/2003***
Sample Type:													
Parameter:	***Units***												
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	0.36 U	0.42 U
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	1.6	0.42 U
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	0.43 U	1.6	0.42 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statwide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*TP19-05*	*TP19-06*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-03D*	*GP19-03D*
Sample Depth:		*0-11 ft BGS*	*-*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*
Sample ID:		*SO-17303-MA-060503-199*	*SO-17303-MA-060403-195*	*SO-17303-052505-DR-0702*	*SO-17303-052505-DR-0703*	*SO-17303-052505-DR-0704*	*SO-17303-052505-DR-0705*	*SO-17303-052705-DR-0714*	*SO-17303-052705-DR-0715*	*SO-17303-052705-DR-0716*	*SO-17303-052705-DR-0717*	*SO-17303-052705-DR-0710*	*SO-17303-052705-DR-0711*
Sample Date:		*06/05/2003*	*06/04/2003*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*
Sample Type:													
Parameter:	*Units*												
VOCs													
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,1,2,2-Tetrachloroethane	mg/kg	0.11 U	0.11 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,1,2-Trichloroethane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,1-Dichloroethane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,1-Dichloroethene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.062 J	0.15 J	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
1,2-Dichlorobenzene	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.035 J	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
1,2-Dichloroethane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,2-Dichloroethene (total)	mg/kg	0.055 U	0.057 U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
1,3-Dichloropropene	mg/kg	0.055 U	0.057 U	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.11 U	0.32	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.83 U	0.85 U	0.64 U	0.63 U	0.66 U	0.63 U	0.63 U	0.6 U	0.67 U	0.58 U	290 U	2500 U
2-Hexanone	mg/kg	2.8 U	2.8 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	1.9 U	980 U	8400 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.8 U	2.8 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	1.9 U	980 U	8400 U
Acetone	mg/kg	0.83 U	1.4	0.64 U	0.63 U	0.66 U	0.63 U	0.63 U	0.6 U	0.67 U	0.58 U	290 U	2500 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.0076 J	0.044 U	0.039 U	20 U	170 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.11 U	0.11 U	0.085 UJ	0.084 UJ	0.088 UJ	0.084 UJ	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
Bromoform	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
Bromomethane (Methyl bromide)	mg/kg	0.28 U	0.28 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.16 U	0.18 U	0.16 U	78 U	670 U
Carbon disulfide	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
Carbon tetrachloride	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Chlorobenzene	mg/kg	0.055 U	0.46	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
Chloroform (Trichloromethane)	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Chloromethane (Methyl chloride)	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
cis-1,2-Dichloroethene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.16	0.34	0.042 U	0.1	0.044 U	0.15	38[ei]	260[cefi]
cis-1,3-Dichloropropene	mg/kg	0.055 U	0.057 U	0.043 UJ	0.042 UJ	0.044 UJ	0.042 UJ	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Cyclohexane	mg/kg	1.3 U	1.4 U	1 U	1 U	1.1 U	1 U	1 U	0.0091 J	1.1 U	0.93 U	470 U	4000 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.055 U	10[ei]	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.045	0.015 J	0.0077 J	3.3 J[ei]	190[defhij]
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.28 U	7.8[i]	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.019 J	0.22 U	0.19 U	98 U	840 U
Methyl acetate	mg/kg	1.3 U	1.4 U	1 U	1 U	1.1 U	1 U	1 U	0.96 U	1.1 U	0.93 U	470 U	4000 U
Methyl cyclohexane	mg/kg	0.55 U	7.2	1 U	1 U	1.1 U	1 U	1 U	0.028 J	1.1 U	0.93 U	470 U	4000 U
Methyl tert butyl ether (MTBE)	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
Methylene chloride	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*TP19-05*	*TP19-06*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-03D*	*GP19-03D*
Sample Depth:		*0-11 ft BGS*	*-*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*
Sample ID:		*SO-17303-MA-060503-199*	*SO-17303-MA-060403-195*	*SO-17303-052505-DR-0702*	*SO-17303-052505-DR-0703*	*SO-17303-052505-DR-0704*	*SO-17303-052505-DR-0705*	*SO-17303-052705-DR-0714*	*SO-17303-052705-DR-0715*	*SO-17303-052705-DR-0716*	*SO-17303-052705-DR-0717*	*SO-17303-052705-DR-0710*	*SO-17303-052705-DR-0711*
Sample Date:		*06/05/2003*	*06/04/2003*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*
Sample Type:													
Parameter:	***Units***												
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Tetrachloroethene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
Toluene	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.064 J	0.089 U	0.078 U	39 U	80 J[ei]
trans-1,2-Dichloroethene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
trans-1,3-Dichloropropene	mg/kg	0.055 U	0.057 U	0.043 U	0.042 U	0.044 U	0.042 U	0.042 U	0.04 U	0.044 U	0.039 U	20 U	170 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.055 U	0.057 U	0.033 J	0.042 U	0.43[e]	2[e]	0.21[e]	0.84[e]	0.41[e]	0.88[e]	540[bcdefhij]	5400[bcdefhij]
Trichlorofluoromethane (CFC-11)	mg/kg	0.11 U	0.11 U	0.085 U	0.084 U	0.088 U	0.084 U	0.084 U	0.08 U	0.089 U	0.078 U	39 U	340 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.28 U	0.28 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.2 U	0.22 U	0.19 U	98 U	840 U
Vinyl chloride	mg/kg	0.11 U	0.11 U	0.034 U	0.034 U	0.035 U	0.034 U	0.034 U	0.032 U	0.036 U	0.031 U	16 U	130 U
Xylenes (total)	mg/kg	0.17 U	18.7[ei]	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.29	0.14	0.073 J	35 J[ei]	1900[defhij]
SVOCs													
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.37 U	1.4	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	2.2 U	4.6 U	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	1.9 U	3.9 U	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	0.17 U	0.34 U	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	0.11 U	0.23 U	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*TP19-05*	*TP19-06*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-03D*	*GP19-03D*
Sample Depth:		*0-11 ft BGS*	*-*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*
Sample ID:		*SO-17303-MA-060503-199*	*SO-17303-MA-060403-195*	*SO-17303-052505-DR-0702*	*SO-17303-052505-DR-0703*	*SO-17303-052505-DR-0704*	*SO-17303-052505-DR-0705*	*SO-17303-052705-DR-0714*	*SO-17303-052705-DR-0715*	*SO-17303-052705-DR-0716*	*SO-17303-052705-DR-0717*	*SO-17303-052705-DR-0710*	*SO-17303-052705-DR-0711*
Sample Date:		*06/05/2003*	*06/04/2003*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*
Sample Type:													
Parameter:	***Units***												
Caprolactam	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.37 U	**1.1**[1]	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.22 U	0.46 U	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	0.89 U	1.8 U	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.37 U	0.75 U	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	0.75 U	-	-	-	-	-	-	-	-	-	-
Inorganics													
Aluminum	mg/kg	1040	5020	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	3.25	**32.6**[e]	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	**6.23 J**[ei]	4.56 J	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	2.61 J	223 J	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	0.22 U	0.23 UJ	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	0.513	**6.9 J**[e]	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	37600	13000	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	**7.7**[i]	**56.1**[ei]	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	1.25	**7.94**[ei]	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	2.19 J	12.1 J	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	2240	10900	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	1.31	58.1	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	5970	5730	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	68.7	216	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	0.11 U	0.11 U	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	3.31	12	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	220 U	502	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	**0.571 J**[i]	**1.04 J**[i]	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	0.55 UJ	0.57 UJ	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	102 J	605 J	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	1.67	**9.18**[ei]	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	3.49	14.5	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	8.81	145	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													

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PAOC		*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*TP19-05*	*TP19-06*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-01D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-02D*	*GP19-03D*	*GP19-03D*
Sample Depth:		*0-11 ft BGS*	*-*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*
Sample ID:		*SO-17303-MA-060503-199*	*SO-17303-MA-060403-195*	*SO-17303-052505-DR-0702*	*SO-17303-052505-DR-0703*	*SO-17303-052505-DR-0704*	*SO-17303-052505-DR-0705*	*SO-17303-052705-DR-0714*	*SO-17303-052705-DR-0715*	*SO-17303-052705-DR-0716*	*SO-17303-052705-DR-0717*	*SO-17303-052705-DR-0710*	*SO-17303-052705-DR-0711*
Sample Date:		*06/05/2003*	*06/04/2003*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/25/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*
Sample Type:													
Parameter:	*Units*												
Aroclor-10(PCB-1016)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	0.37 U	0.38 U	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	0.37 U	0.47	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	0.37 U	0.47	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statwide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.2A

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PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*GP19-03D*	*GP19-03D*	*MW19-25*	*MW19-25*	*MW19-25*	*MW19-25*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*
Sample Depth:		*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*9-11 ft BGS*
Sample ID:		*SO-17303-052705-DR-0712*	*SO-17303-052705-DR-0713*	*SO-17303-052705-DR-0706*	*SO-17303-052705-DR-0707*	*SO-17303-052705-DR-0708*	*SO-17303-052705-DR-0709*	*SO-17303-060305-DR-0736*	*SO-17303-060305-DR-0737*	*SO-17303-060305-DR-0738*	*SO-17303-060305-DR-0739*	*SO-17303-060305-DR-0740*
Sample Date:		*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*
Sample Type:												*Duplicate*
Parameter:	*Units*											
VOCs												
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,1,2-Trichloroethane	mg/kg	**14 J[ei]**	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,1-Dichloroethane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,1-Dichloroethene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,2-Dichloroethane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	570 U	120 U	1.6 U	0.62 U	0.66 U	6.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Hexanone	mg/kg	1900 U	400 U	5.2 U	2.1 U	2.2 U	21 U	2 U	2 U	2 U	2 U	2 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	1900 U	400 U	5.2 U	2.1 U	2.2 U	21 U	2 U	2 U	2 U	2 U	2 U
Acetone	mg/kg	570 U	120 U	1.6 U	0.62 U	0.66 U	6.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.011 J	0.04 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 UJ	0.08 UJ	0.08 UJ	0.08 UJ	0.08 UJ
Bromoform	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Bromomethane (Methyl bromide)	mg/kg	150 U	32 U	0.42 U	0.16 U	0.18 U	1.7 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chlorobenzene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chloromethane (Methyl chloride)	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	**58[efi]**	**65[efi]**	0.087 J	0.041 U	0.22	1.1	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
cis-1,3-Dichloropropene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ
Cyclohexane	mg/kg	910 U	190 U	2.5 U	0.99 U	1.1 U	10 U	0.96 U	0.96 U	0.96 U	0.037 J	0.96 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	**63[ei]**	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.0099 J	0.04 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.05 J	0.2 U
Methyl acetate	mg/kg	910 U	190 U	2.5 U	0.99 U	1.1 U	10 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Methyl cyclohexane	mg/kg	910 U	190 U	2.5 U	0.99 U	1.1 U	10 U	0.96 U	0.96 U	0.96 U	0.068 J	0.03 J
Methyl tert butyl ether (MTBE)	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methylene chloride	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*GP19-03D*	*GP19-03D*	*MW19-25*	*MW19-25*	*MW19-25*	*MW19-25*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*
Sample Depth:		*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*9-11 ft BGS*
Sample ID:		*SO-17303-052705-DR-0712*	*SO-17303-052705-DR-0713*	*SO-17303-052705-DR-0706*	*SO-17303-052705-DR-0707*	*SO-17303-052705-DR-0708*	*SO-17303-052705-DR-0709*	*SO-17303-060305-DR-0736*	*SO-17303-060305-DR-0737*	*SO-17303-060305-DR-0738*	*SO-17303-060305-DR-0739*	*SO-17303-060305-DR-0740*
Sample Date:		*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*
Sample Type:												*Duplicate*
Parameter:	*Units*											
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Tetrachloroethene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Toluene	mg/kg	24 J[ei]	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.0091 J	0.08 U
trans-1,2-Dichloroethene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
trans-1,3-Dichloropropene	mg/kg	38 U	8.1 U	0.1 U	0.041 U	0.044 U	0.43 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	1600[bcdefhij]	330[cefi]	4.9[ei]	0.04 J	2.4[e]	17[ei]	0.013 J	0.04 U	0.04 U	0.036 J	0.019 J
Trichlorofluoromethane (CFC-11)	mg/kg	76 U	16 U	0.21 U	0.082 U	0.088 U	0.86 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	190 U	40 U	0.52 U	0.21 U	0.22 U	2.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride	mg/kg	30 U	6.5 U	0.084 U	0.033 U	0.035 U	0.34 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
Xylenes (total)	mg/kg	700[defhij]	24 U	0.31 U	0.12 U	0.13 U	1.3 U	0.12 U	0.12 U	0.12 U	0.054 J	0.12 U
SVOCs												
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.15 U	0.15 U	0.15 UJ	0.15 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
2-Chlorophenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.037 J	0.077 J
2-Methylphenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	0.5 U	0.2 U	0.2 U	0.2 UJ	0.2 U
2-Nitrophenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 UJ	0.26 U	0.26 U	0.26 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	4 U	1.6 U	1.6 U	1.6 U	1.6 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	0.5 U	0.2 U	0.2 U	0.2 UJ	0.2 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	0.38 U	0.15 U	0.15 U	0.15 U	0.15 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	0.38 U	0.15 U	0.15 U	0.15 U	0.15 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
4-Methylphenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	0.5 U	0.2 U	0.2 U	0.2 UJ	0.2 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	0.82 U	0.33 U	0.33 U	0.33 UJ	0.33 U
Acenaphthene	mg/kg	-	-	-	-	-	-	0.2 J	0.26 U	0.26 U	0.017 J	0.26 U
Acenaphthylene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
Acetophenone	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Anthracene	mg/kg	-	-	-	-	-	-	0.34 J	0.017 J	0.26 U	0.018 J	0.18 J
Atrazine	mg/kg	-	-	-	-	-	-	0.1 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	0.94 J	0.07 J	0.26 U	0.041 J	0.28
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	0.93 J	0.095 J	0.26 U	0.033 J	0.26
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	1.1 J	0.11 J	0.26 U	0.042 J	0.31
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	0.55 J	0.061 J	0.26 U	0.023 J	0.13 J
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	0.53 J	0.042 J	0.26 U	0.024 J	0.12 J
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	0.044 J	0.26 U	0.26 U	0.26 U	0.26 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	0.2 U	0.08 U	0.08 U	0.08 U	0.08 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.031 J
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*GP19-03D*	*GP19-03D*	*MW19-25*	*MW19-25*	*MW19-25*	*MW19-25*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*
Sample Depth:		*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*9-11 ft BGS*
Sample ID:		*SO-17303-052705-DR-0712*	*SO-17303-052705-DR-0713*	*SO-17303-052705-DR-0706*	*SO-17303-052705-DR-0707*	*SO-17303-052705-DR-0708*	*SO-17303-052705-DR-0709*	*SO-17303-060305-DR-0736*	*SO-17303-060305-DR-0737*	*SO-17303-060305-DR-0738*	*SO-17303-060305-DR-0739*	*SO-17303-060305-DR-0740*
Sample Date:		*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*
Sample Type:												*Duplicate*
Parameter:	*Units*											
Caprolactam	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Carbazole	mg/kg	-	-	-	-	-	-	0.24 J	0.26 U	0.26 U	0.26 U	0.053 J
Chrysene	mg/kg	-	-	-	-	-	-	0.95 J	0.075 J	0.26 U	0.046 J	0.26
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	0.14 J	0.029 J	0.26 U	0.26 U	0.046 J
Dibenzofuran	mg/kg	-	-	-	-	-	-	0.068 J	0.26 U	0.26 U	0.26 UJ	0.039 J
Diethyl phthalate	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Fluoranthene	mg/kg	-	-	-	-	-	-	3.2 J	0.14 J	0.26 U	0.14 J	0.92
Fluorene	mg/kg	-	-	-	-	-	-	0.15 J	0.26 U	0.26 U	0.26 UJ	0.08 J
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	0.1 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 UJ	0.26 U
Hexachloroethane	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	0.49 J	0.052 J	0.26 U	0.019 J	0.12 J
Isophorone	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Naphthalene	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.022 J	0.046 J
Nitrobenzene	mg/kg	-	-	-	-	-	-	0.66 UJ	0.26 U	0.26 UJ	0.26 UJ	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Pentachlorophenol	mg/kg	-	-	-	-	-	-	0.38 U	0.15 U	0.15 U	0.15 U	0.15 U
Phenanthrene	mg/kg	-	-	-	-	-	-	**2.2 J[i]**	0.054 J	0.26 U	0.077 J	0.79
Phenol	mg/kg	-	-	-	-	-	-	0.66 U	0.26 U	0.26 U	0.26 U	0.26 U
Pyrene	mg/kg	-	-	-	-	-	-	2.2 J	0.11 J	0.26 U	0.095 J	0.63
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Inorganics												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	1.9 J	0.028 J	R	0.036 J	0.083 J
Arsenic	mg/kg	-	-	-	-	-	-	2.5	1.8	3.4	1.3	1.4
Barium	mg/kg	-	-	-	-	-	-	28.2	9.6	17.9	13.0	9.9
Beryllium	mg/kg	-	-	-	-	-	-	0.30	0.16 U	0.16 U	0.16 U	0.16 U
Cadmium	mg/kg	-	-	-	-	-	-	0.39	0.034 J	0.080 U	0.025 J	0.055 J
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	**18.5[i]**	**14.4[i]**	**10.2[i]**	**11.3[i]**	**8.0[i]**
Cobalt	mg/kg	-	-	-	-	-	-	3.2	2.7	3.6	3.6	2.8
Copper	mg/kg	-	-	-	-	-	-	8.2	5.8	8.2	7.7	6.2
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	11.6	10.7	5.0	6.2	5.2
Lead - fine fraction	mg/kg	-	-	-	-	-	-	15.7	5.4	6.6	6.7	5.5
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	12.8	7.7	5.8	6.5	5.4
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	199	63.7	139	104	135
Mercury	mg/kg	-	-	-	-	-	-	0.040 U	0.033 J	0.040 U	0.040 U	0.040 U
Nickel	mg/kg	-	-	-	-	-	-	7.8	5.7	8.0	8.7	6.0
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	0.16 U	0.094 J	0.11 J	0.10 J	0.16 U
Silver	mg/kg	-	-	-	-	-	-	0.042 J	0.017 J	0.026 J	0.029 J	0.031 J
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	0.066 J	0.035 J	0.061 J	0.060 J	0.054 J
Vanadium	mg/kg	-	-	-	-	-	-	9.8	8.5	14.4	12.5	8.9
Zinc	mg/kg	-	-	-	-	-	-	50.2 J	20.6	16.8	18.5	17.9
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*GP19-03D*	*GP19-03D*	*MW19-25*	*MW19-25*	*MW19-25*	*MW19-25*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*	*SB23-03*
Sample Depth:		*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-12 ft BGS*	*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*9-11 ft BGS*
Sample ID:		*SO-17303-052705-DR-0712*	*SO-17303-052705-DR-0713*	*SO-17303-052705-DR-0706*	*SO-17303-052705-DR-0707*	*SO-17303-052705-DR-0708*	*SO-17303-052705-DR-0709*	*SO-17303-060305-DR-0736*	*SO-17303-060305-DR-0737*	*SO-17303-060305-DR-0738*	*SO-17303-060305-DR-0739*	*SO-17303-060305-DR-0740*
Sample Date:		*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*05/27/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*
Sample Type:												*Duplicate*
Parameter:	*Units*											
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	0.011 J	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	0.065 J	0.024 J	0.26 U	0.0052 J	0.0079 J
Total PCBs	mg/kg	-	-	-	-	-	-	0.077 J	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*SB23-04*	*SB23-04*	*SB23-04*	*SB23-04*	*TP-A30*	*TP-A30*	*TP-A30*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*2-2 ft BGS*	*5.7-5.7 ft BGS*	*16-16 ft BGS*
Sample ID:		*SO-17303-060305-DR-0732*	*SO-17303-060305-DR-0733*	*SO-17303-060305-DR-0734*	*SO-17303-060305-DR-0735*	*SO-17303-061405-BW-0777*	*SO-17303-061405-BW-0779*	*SO-17303-061405-BW-0780*
Sample Date:		*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/14/2005*	*06/14/2005*	*06/14/2005*
Sample Type:								
Parameter:	*Units*							
VOCs								
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,1,2,2-Tetrachloroethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,1,2-Trichloroethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,1-Dichloroethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,1-Dichloroethene	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
1,2-Dichlorobenzene	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
1,2-Dichloroethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.58 U	0.6 U	2.2 U	0.6 U	4100 U	1200 U	12 U
2-Hexanone	mg/kg	1.9 U	2 U	7.2 U	2 U	14000 U	3900 U	40 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	1.9 U	2 U	7.2 U	2 U	14000 U	3900 U	40 U
Acetone	mg/kg	0.58 U	0.6 U	2.2 U	0.6 U	4100 U	1200 U	12 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-
Benzene	mg/kg	0.038 U	0.04 U	0.047 J	0.014 J	270 U	78 U	0.8 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.077 U	0.08 UJ	0.29 UJ	0.08 UJ	540 UJ	160 UJ	1.6 UJ
Bromoform	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
Bromomethane (Methyl bromide)	mg/kg	0.15 U	0.16 U	0.58 U	0.16 U	1100 U	310 U	3.2 U
Carbon disulfide	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
Carbon tetrachloride	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Chlorobenzene	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
Chloroform (Trichloromethane)	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Chloromethane (Methyl chloride)	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
cis-1,2-Dichloroethene	mg/kg	0.21	0.19	**4.7[e]**	**1.5[e]**	**1400[bcdefhij]**	**300[cefi]**	**2[e]**
cis-1,3-Dichloropropene	mg/kg	0.038 U	0.04 UJ	0.14 UJ	0.04 UJ	270 U	78 U	0.8 U
Cyclohexane	mg/kg	0.92 U	0.96 U	3.5 U	0.027 J	6500 U	100 J	19 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.038 U	0.04 U	0.029 J	0.013 J	**280[defhij]**	**89[ei]**	0.8 U
Iodomethane	mg/kg	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.19 U	0.2 U	0.02 J	0.052 J	**290 J[ei]**	**80 J[i]**	4 U
Methyl acetate	mg/kg	0.92 U	0.96 U	3.5 U	0.96 U	6500 U	1900 U	19 U
Methyl cyclohexane	mg/kg	0.92 U	0.96 U	0.092 J	0.037 J	79 J	31 J	19 U
Methyl tert butyl ether (MTBE)	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
Methylene chloride	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
Naphthalene	mg/kg	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***SB23-04***	***SB23-04***	***SB23-04***	***SB23-04***	***TP-A30***	***TP-A30***	***TP-A30***
Sample Depth:		***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***2-2 ft BGS***	***5.7-5.7 ft BGS***	***16-16 ft BGS***
Sample ID:		***SO-17303-060305-DR-0732***	***SO-17303-060305-DR-0733***	***SO-17303-060305-DR-0734***	***SO-17303-060305-DR-0735***	***SO-17303-061405-BW-0777***	***SO-17303-061405-BW-0779***	***SO-17303-061405-BW-0780***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/14/2005***	***06/14/2005***	***06/14/2005***
Sample Type:								
Parameter:	***Units***							
o-Xylene	mg/kg	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-
Styrene	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Tetrachloroethene	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
Toluene	mg/kg	0.077 U	0.08 U	0.23 J	0.089	930[defhij]	450[defhij]	1.6 U
trans-1,2-Dichloroethene	mg/kg	0.038 U	0.04 U	0.14 U	0.012 J	270 U	78 U	0.8 U
trans-1,3-Dichloropropene	mg/kg	0.038 U	0.04 U	0.14 U	0.04 U	270 U	78 U	0.8 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.16[e]	0.017 J	0.14 U	0.047	9700[bcdefhij]	2500[bcdefhij]	0.56 J[e]
Trichlorofluoromethane (CFC-11)	mg/kg	0.077 U	0.08 U	0.29 U	0.08 U	540 U	160 U	1.6 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.19 U	0.2 U	0.72 U	0.2 U	1400 U	390 U	4 U
Vinyl chloride	mg/kg	0.031 U	0.032 U	0.23[e]	0.15[e]	220 U	62 U	26[efhi]
Xylenes (total)	mg/kg	0.12 U	0.12 U	0.17 J	0.061 J	2600[defhij]	750[defhij]	0.34 J
SVOCs								
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,4,5-Trichlorophenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,4,6-Trichlorophenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,4-Dichlorophenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,4-Dimethylphenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,4-Dinitrophenol	mg/kg	0.15 U	0.15 U	0.15 U	0.15 U	30 U	7.5 U	0.75 U
2,4-Dinitrotoluene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2,6-Dinitrotoluene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2-Chloronaphthalene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2-Chlorophenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2-Methylnaphthalene	mg/kg	0.039 J	0.26 U	0.26 U	0.26 U	52 J[i]	7.8 J[i]	0.1 J
2-Methylphenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
2-Nitroaniline	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	40 U	10 U	1 U
2-Nitrophenol	mg/kg	0.26 UJ	0.26 UJ	0.26 U	0.26 UJ	53 U	13 U	1.3 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	1.6 U	1.6 U	1.6 U	1.6 U	320 U	80 U	8 U
3-Nitroaniline	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	40 U	10 U	1 U
4,6-Dinitro-2-methylphenol	mg/kg	0.15 U	0.15 U	0.15 U	0.15 U	30 U	7.5 U	0.75 U
4-Bromophenyl phenyl ether	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
4-Chloro-3-methylphenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
4-Chloroaniline	mg/kg	0.15 U	0.15 U	0.15 U	0.15 U	30 U	7.5 U	0.75 U
4-Chlorophenyl phenyl ether	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
4-Methylphenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	4.1 J#[i]	2.6 J#[i]	1.3 U
4-Nitroaniline	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	40 U	10 U	1 U
4-Nitrophenol	mg/kg	0.33 U	0.33 U	0.33 U	0.33 U	66 U	16 U	1.6 U
Acenaphthene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	7.5 J	4.2 J	0.13 J
Acenaphthylene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Acetophenone	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Anthracene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	2.1 J	0.095 J
Atrazine	mg/kg	0.04 U	0.04 U	0.04 U	0.04 U	8 U	2 U	0.2 U
Benzaldehyde	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Benzo(a)anthracene	mg/kg	0.08 J	0.26 U	0.26 U	0.26 U	19 J	2.7 J	1.3 U
Benzo(a)pyrene	mg/kg	0.1 J	0.26 U	0.26 U	0.26 U	7.2 J	1.7 J	1.3 U
Benzo(b)fluoranthene	mg/kg	0.14 J	0.26 U	0.26 U	0.26 U	20 J	2.6 J	1.3 U
Benzo(g,h,i)perylene	mg/kg	0.079 J	0.26 U	0.26 U	0.26 U	6.6 J	13 U	1.3 U
Benzo(k)fluoranthene	mg/kg	0.047 J	0.26 U	0.26 U	0.26 U	8.1 J	1.3 J	1.3 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	10 J	1.4 J	1.3 U
bis(2-Chloroethoxy)methane	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
bis(2-Chloroethyl)ether	mg/kg	0.08 U	0.08 U	0.08 U	0.08 U	16 U	4 U	0.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.26 U	0.26 U	0.26 U	0.018 J	53 U	13 U	1.3 U
Butyl benzylphthalate (BBP)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*SB23-04*	*SB23-04*	*SB23-04*	*SB23-04*	*TP-A30*	*TP-A30*	*TP-A30*
Sample Depth:		*0-3 ft BGS*	*3-6 ft BGS*	*6-9 ft BGS*	*9-11 ft BGS*	*2-2 ft BGS*	*5.7-5.7 ft BGS*	*16-16 ft BGS*
Sample ID:		*SO-17303-060305-DR-0732*	*SO-17303-060305-DR-0733*	*SO-17303-060305-DR-0734*	*SO-17303-060305-DR-0735*	*SO-17303-061405-BW-0777*	*SO-17303-061405-BW-0779*	*SO-17303-061405-BW-0780*
Sample Date:		*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/03/2005*	*06/14/2005*	*06/14/2005*	*06/14/2005*
Sample Type:								
Parameter:	*Units*							
Caprolactam	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Carbazole	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	13 J[i]	1.5 J[i]	1.3 U
Chrysene	mg/kg	0.078 J	0.26 U	0.26 U	0.26 U	23 J	3.2 J	0.13 J
Dibenz(a,h)anthracene	mg/kg	0.033 J	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Dibenzofuran	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	40 J[i]	5.1 J[i]	0.12 J
Diethyl phthalate	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Dimethyl phthalate	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Di-n-butylphthalate (DBP)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	190[i]	38[i]	0.64 J
Di-n-octyl phthalate (DnOP)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Fluoranthene	mg/kg	0.16 J	0.26 U	0.26 U	0.014 J	74[i]	9.8 J[i]	0.31 J
Fluorene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	3.2 J	0.14 J
Hexachlorobenzene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Hexachlorobutadiene	mg/kg	0.04 U	0.04 U	0.04 U	0.04 U	8 U	2 U	0.2 U
Hexachlorocyclopentadiene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Hexachloroethane	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.065 J	0.26 U	0.26 U	0.26 U	5.6 J	0.9 J	1.3 U
Isophorone	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Naphthalene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	210[ei]	36[i]	0.32 J
Nitrobenzene	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
N-Nitrosodi-n-propylamine	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
N-Nitrosodiphenylamine	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	53 U	13 U	1.3 U
Pentachlorophenol	mg/kg	0.15 U	0.15 U	0.15 U	0.15 U	30 U	7.5 U	0.75 U
Phenanthrene	mg/kg	0.043 J	0.26 U	0.26 U	0.26 U	140[i]	19[i]	0.52 J
Phenol	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	67[i]	8.7 J	1.3 U
Pyrene	mg/kg	0.14 J	0.26 U	0.26 U	0.26 U	51 J	7.2 J	0.23 J
Pyridine	mg/kg	-	-	-	-	-	-	-
Inorganics								
Aluminum	mg/kg	-	-	-	-	-	-	-
Antimony	mg/kg	0.84 J	0.039 J	0.16 UJ	0.089 J	645 J[ei]	207 J[ei]	0.027 J
Arsenic	mg/kg	1.9	3.5	1.3	1.7	3.8 J	2.1 J	1.8 J
Barium	mg/kg	25.3	7.5	4.6	10.3	2230[ei]	722	49.2
Beryllium	mg/kg	0.16 U	0.16 U	0.16	0.16 U	1.6 U	0.17	0.45
Cadmium	mg/kg	0.25	0.080 U	0.074 J	0.051 J	63.2[ei]	18.7[ei]	0.21
Calcium	mg/kg	-	-	-	-	-	-	-
Chromium	mg/kg	10.4[i]	24.9[i]	21.8[i]	21.9[i]	14500[degi]	2220[egi]	13.5[i]
Cobalt	mg/kg	1.9	2.9	1.7	2.2	37.1[ei]	18.1[ei]	6.7
Copper	mg/kg	5.2	6.2	3.1	4.4	236[i]	258[i]	16.8
Iron	mg/kg	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	51.0	5.4	8.7	4.6	307	448	11.6
Lead - fine fraction	mg/kg	50.9	4.7	20.4	5.1	696	305	24.8
Lead - total (calculated by fine/coarse fraction)	mg/kg	51.5	5.1	13.1	5.0	433	417	14.8
Magnesium	mg/kg	-	-	-	-	-	-	-
Manganese	mg/kg	211	86.9	118	140	276	164	331
Mercury	mg/kg	0.017 J	0.0093 J	0.0080 J	0.040 U	0.049	0.076	0.040 U
Nickel	mg/kg	5.1	6.0	3.6	5.3	9.5	13.1	18.0
Potassium	mg/kg	-	-	-	-	-	-	-
Selenium	mg/kg	0.095 J	0.098 J	0.16 U	0.16 U	16.0 UJ	0.98 J[i]	0.16 J
Silver	mg/kg	0.050 J	0.029 J	0.018 J	0.024 J	8.0 UJ	0.80 UJ	0.041 J
Sodium	mg/kg	-	-	-	-	-	-	-
Thallium	mg/kg	0.055 J	0.054 J	0.025 J	0.042 J	8.0 UJ	0.044 J	0.15 J
Vanadium	mg/kg	7.0	11.1	5.5	8.6	13.8	16.8	16.9
Zinc	mg/kg	68.8	15.1	10.9 J	12.5	17000[ei]	1920[i]	26.6
Cyanide (total)	mg/kg	-	-	-	-	-	-	-
PCBs								

APPENDIX F.2A

PAOC 23 - SOIL ANALTYICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		***PAOC 23***	***PAOC 23***	***PAOC 23***	***PAOC 23***	***PAOC 23***	***PAOC 23***	***PAOC 23***
Sample Location:		***SB23-04***	***SB23-04***	***SB23-04***	***SB23-04***	***TP-A30***	***TP-A30***	***TP-A30***
Sample Depth:		***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***2-2 ft BGS***	***5.7-5.7 ft BGS***	***16-16 ft BGS***
Sample ID:		***SO-17303-060305-DR-0732***	***SO-17303-060305-DR-0733***	***SO-17303-060305-DR-0734***	***SO-17303-060305-DR-0735***	***SO-17303-061405-BW-0777***	***SO-17303-061405-BW-0779***	***SO-17303-061405-BW-0780***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/14/2005***	***06/14/2005***	***06/14/2005***
Sample Type:								
Parameter:	***Units***							
Aroclor-10(PCB-1016)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1221)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1232)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1242)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1248)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.56	0.13 J	0.017 J
Aroclor-12(PCB-1254)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1260)	mg/kg	0.88	0.26 U	0.26 U	0.094 J	1.3	0.41	0.26 U
Total PCBs	mg/kg	0.88	0.26 U	0.26 U	0.094 J	1.8	0.53	0.26 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statwide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

TABLE F.2B

PAOC 23 - INDOOR AIR ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC			*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***Non-Residential***	***IA-001***	***IA-001***	***IA-002***	***IA-003***	***IA-004***	***IA-005***	***IA-006***	***IA-007***	***IA-008***
Sample ID:		***Indoor Air Criteria(a)***	***G-17303-070506-MMD-001***	***G-17303-070506-MMD-009***	***G-17303-070506-MMD-002***	***G-17303-070506-MMD-003***	***G-17303-070506-MMD-004***	***G-17303-070506-MMD-005***	***G-17303-070506-MMD-006***	***G-17303-070506-MMD-007***	***G-17303-070506-MMD-008***
Sample Date:			***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***	***07/06/2006***
Sample Type:				***Duplicate***							
Parameter	***Units***										
VOCs											
cis-1,2-Dichloroethene	ug/m3	5.2E+01	21	20	17	16	11	13	14	0.79 U	0.79 U
Trichloroethene	ug/m3	5.8E+01	**290**	**280**	**98**	**200**	**77**	**86**	**100**	1.1 U	1.1 U
Vinyl chloride	ug/m3	1.1E+01	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Notes:
The Indoor Air samples are compared against the Non Residential Indoor Air criteria listed in the MDEQ Draft Proposed Vapor Intrusion Indoor Air Criteria (2009).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The associated value is qualified as an estimated quantity.

APPENDIX F.2C

PAOC 23 - SOIL GAS ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC				*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*DEEP 5'*	*SUB-SLAB*	*SB19-18*	*GP19-01S*	*GP19-02S*	*GP19-03S*	*GP19-04S*	*SB19-19*	*GP19-01D*	*GP19-02D*	*GP19-03D*	*GP19-03D*	*GP19-04D*
Sample ID:		*Non-Residential*	*Non-Residential*	*SG-17303-051804-DCR-327*	*GS-17303-060705-DN-0750*	*GS-17303-060705-DN-0757*	*GS-17303-060705-DN-0756*	*GS-17303-060705-DN-0751*	*SG-17303-051804-DCR-326*	*GS-17303-060705-DN-0748*	*GS-17303-060705-DN-0754*	*GS-17303-060705-DN-0753*	*GS-17303-060705-DN-0755*	*GS-17303-060705-DN-0749*
Sample Date:		*Soil Gas Criteria(a)*	*Soil Gas Criteria(a)*	*05/18/2004*	*06/07/2005*	*06/07/2005*	*06/07/2005*	*06/07/2005*	*05/18/2004*	*06/07/2005*	*06/07/2005*	*06/07/2005*	*06/07/2005*	*06/07/2005*
Sample Type:													*Duplicate*	
Parameter	*Units*	*b*	*c*											
VOCs														
1,1,1-Trichloroethane	ug/m3	4.5E+6	4.5E+5	4100 U	1100 U	21 U	2100 U	11000 U	410 U	2200 U	210 U	10000 U	11000 U	11000 U
1,1,2,2-Tetrachloroethane	ug/m3	8.6E+2	8.6E+1	5200 U	1400 U	26 U	2600 U	14000 U	520 U	2700 U	270 U	13000 U	14000 U	14000 U
1,1,2-Trichloroethane	ug/m3	3.1E+3	3.1E+2	4100 U	1100 U	21 U	2100 U	11000 U	410 U	2200 U	210 U	10000 U	12000[b]	11000 U
1,1-Dichloroethane	ug/m3	3.7E+5	3.7E+4	3000 U	810 U	16 U	1500 U	8000 U	300 U	1600 U	160 U	7600 U	8500 U	8400 U
1,1-Dichloroethene	ug/m3	1.5E+5	1.5E+4	12000	2000	53	1500 U	2900 J	1200	4500	680	11000	26000	3500 J
1,2,4-Trichlorobenzene	ug/m3	3.0E+7	3.0E+6	14000 U	3700 U	71 U	7000 U	37000 U	1400 U	7300 U	720 U	35000 U	39000 U	38000 U
1,2,4-Trimethylbenzene	ug/m3	1.6E+5	1.6E+4	3600 U	980 U	19 U	1900 U	9800 U	360 U	1900 U	190 U	9200 U	10000 U	10000 U
1,2-Dibromoethane (Ethylene dibromide)	ug/m3	8.3E+1	8.3E+0	5500 U	1500 U	29 U	2900 U	15000 U	550 U	3000 U	300 U	14000 U	16000 U	16000 U
1,2-Dichlorobenzene	ug/m3	2.2E+5	2.2E+4	4400 U	1200 U	23 U	2300 U	12000 U	440 U	2400 U	230 U	11000 U	13000 U	12000 U
1,2-Dichloroethane	ug/m3	1.9E+3	1.9E+2	3000 U	810 U	16 U	1500 U	8000 U	300 U	1600 U	160 U	7600 U	8500 U	8400 U
1,2-Dichloropropane	ug/m3	3.0E+3	3.0E+2	3400 U	920 U	18 U	1700 U	9200 U	340 U	1800 U	180 U	8700 U	9700 U	9500 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	-	-	5200 U	1400 U	27 U	2700 U	14000 U	520 U	2800 U	270 U	13000 U	15000 U	14000 U
1,3,5-Trimethylbenzene	ug/m3	1.6E+5	1.6E+4	3600 U	980 U	19 U	1900 U	9800 U	360 U	1900 U	190 U	9200 U	10000 U	10000 U
1,3-Dichlorobenzene	ug/m3	2.2E+3	2.2E+2	4400 U	1200 U	23 U	2300 U	12000 U	440 U	2400 U	230 U	11000 U	13000 U	12000 U
1,4-Dichlorobenzene	ug/m3	7.2E+3	7.2E+2	4400 U	1200 U	23 U	2300 U	12000 U	440 U	2400 U	230 U	11000 U	13000 U	12000 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/m3	3.7E+6	3.7E+5	11000 U	2900 U	56 U	5600 U	29000 U	1100 U	5800 U	580 U	28000 U	31000 U	30000 U
2-Hexanone	ug/m3	3.0E+4	3.0E+3	15000 U	4100 U	79 U	7800 U	41000 U	1500 U	8100 U	800 U	38000 U	43000 U	42000 U
4-Ethyl toluene	ug/m3	-	-	3600 U	980 U	14 J	1900 U	9800 U	360 U	1900 U	190 U	9200 U	10000 U	10000 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/m3	2.2E+6	2.2E+5	15000 U	4100 U	79 U	7800 U	41000 U	1500 U	8100 U	800 U	38000 U	43000 U	42000 U
Acetone	ug/m3	4.4E+6	4.4E+5	2900 J	2400 U	99	4500 U	24000 U	260 J	4700 U	460 U	22000 U	25000 U	25000 U
Benzene	ug/m3	6.0E+3	6.0E+2	2400 U	290 J	12 U	1200 U	6400 U	240 U	1300 U	120 U	24000[b]	22000[b]	6600 U
Benzyl chloride	ug/m3	9.9E+2	9.9E+1	19000 U	5200 U	99 U	9800 U	52000 U	1900 U	10000 U	1000 U	49000 U	54000 U	54000 U
Bromodichloromethane	ug/m3	2.8E+3	2.8E+2	4800 U	1300 U	26 U	2500 U	13000 U	480 U	2700 U	260 U	13000 U	14000 U	14000 U
Bromoform	ug/m3	4.5E+4	4.5E+3	2900 U	2100 U	40 U	3900 U	21000 U	290 U	4100 U	400 U	19000 U	22000 U	21000 U
Bromomethane (Methyl bromide)	ug/m3	3.7E+3	3.7E+2	2900 U	780 U	15 U	1500 U	7700 U	290 U	1500 U	150 U	7300 U	8100 U	8000 U
Carbon disulfide	ug/m3	5.2E+5	5.2E+4	11000 U	3100 U	60 U	5900 U	31000 U	1100 U	6200 U	610 U	29000 U	33000 U	32000 U
Carbon tetrachloride	ug/m3	3.3E+3	3.3E+2	4800 U	1300 U	24 U	2400 U	13000 U	480 U	2500 U	250 U	12000 U	13000 U	13000 U
Chlorobenzene	ug/m3	5.2E+4	5.2E+3	3400 U	920 U	18 U	1700 U	9200 U	340 U	1800 U	180 U	8600 U	9600 U	9500 U
Chloroethane	ug/m3	7.4E+6	7.4E+5	4100 U	1000 U	20 U	2000 U	10000 U	410 U	2100 U	210 U	9900 U	11000 U	11000 U
Chloroform (Trichloromethane)	ug/m3	2.1E+4	2.1E+3	3600 U	1100	10 J	1800 U	9700 U	150 J	1900 U	110 J	11000	11000	10000 U
Chloromethane (Methyl chloride)	ug/m3	6.7E+4	6.7E+3	3000 U	820 U	16 U	1600 U	8200 U	300 U	1600 U	160 U	7700 U	3100 J	8500 U
cis-1,2-Dichloroethene	ug/m3	2.6E+4	2.6E+3	200000[c]	20000[c]	85	1500 U	30000[c]	10000[c]	63000[b]	4200	4100000[b]	3800000[b]	78000[b]
cis-1,3-Dichloropropene	ug/m3	-	-	3400 U	910 U	17 U	1700 U	9000 U	340 U	1800 U	180 U	8500 U	9500 U	9400 U
Dibromochloromethane	ug/m3	2.0E+3	2.0E+2	6300 U	1700 U	33 U	3200 U	17000 U	630 U	3400 U	330 U	16000 U	18000 U	18000 U
Dichlorodifluoromethane (CFC-12)	ug/m3	3.7E+7	3.7E+6	3700 U	990 U	19 U	1900 U	9800 U	370 U	2000 U	190 U	9300 U	10000 U	10000 U
Ethylbenzene	ug/m3	1.6E+5	1.6E+4	3200 U	870 U	11 J	1600 U	8600 U	320 U	1700 U	170 U	23000	29000	9000 U
Hexachlorobutadiene	ug/m3	2.3E+3	2.3E+2	16000 U	4300 U	82 U	8100 U	42000 U	1600 U	8400 U	830 U	40000 U	45000 U	44000 U
m&p-Xylenes	ug/m3	-	-	3200 U	870 U	38	1600 U	8700 U	320 U	1700 U	170 U	78000	110000	9000 U
Methylene chloride	ug/m3	1.1E+5	1.1E+4	2600 U	1100 U	21 U	2100 U	11000 U	260 U	2200 U	210 U	20000	20000	11000 U
o-Xylene	ug/m3	-	-	3200 U	870 U	9.3 J	1600 U	8700 U	320 U	1700 U	170 U	21000	37000	9000 U
Styrene	ug/m3	8.7E+4	8.7E+3	3100 U	850 U	16 U	1600 U	8500 U	310 U	1700 U	170 U	8000 U	8900 U	8800 U
Tetrachloroethene	ug/m3	8.6E+4	8.6E+3	2200 J	720 J	14 J	2600 U	13000 U	520 U	2700 U	260 U	13000 U	14000 U	14000 U
Toluene	ug/m3	3.7E+6	3.7E+5	2800 U	350 J	17	1400 U	7500 U	280 U	1500 U	87 J	78000	46000	7800 U
trans-1,2-Dichloroethene	ug/m3	5.2E+4	5.2E+3	11000[c]	4500	68	1500 U	7900 U	1600	5400	1000	15000	15000	8200 U
trans-1,3-Dichloropropene	ug/m3	-	-	3400 U	910 U	17 U	1700 U	9000 U	340 U	1800 U	180 U	8500 U	9500 U	9400 U
Trichloroethene	ug/m3	2.9E+4	2.9E+3	630000[c]	780000[c]	2800	280000[c]	1400000[c]	78000[c]	180000[b]	37000[b]	14000000[b]	16000000[b]	1100000[b]
Trichlorofluoromethane (CFC-11)	ug/m3	4.2E+7	4.2E+6	4100 U	1100 U	22 U	2100 U	11000 U	410 U	2200 U	220 U	11000 U	12000 U	12000 U
Trifluorotrichloroethane (Freon 113)	ug/m3	1.4E+7	1.4E+6	5500 U	1500 U	29 U	2900 U	15000 U	550 U	3000 U	300 U	14000 U	16000 U	16000 U
Vinyl acetate	ug/m3	1.5E+5	1.5E+4	13000 U	3500 U	67 U	6700 U	35000 U	1300 U	7000 U	690 U	33000 U	37000 U	36000 U
Vinyl chloride	ug/m3	5.6E+3	5.6E+2	1900 U	510 U	9.8 U	970 U	5100 U	190 U	1000 U	100 U	4800 U	30000[b]	5300 U
Xylenes (total)	ug/m3	7.4E+4	7.4E+3	3200 U	870 U	48	1600 U	8700 U	320 U	1700 U	170 U	99000[b]	150000[b]	9000 U

Notes:
The shallow gas probes (GP19-01S, GP19-02S, GP19-03S, GP19-04S, SB19-18, and SB19-19) are compared against the Sub-Slab Non Residential criteria listed in the MDEQ Draft Proposed Vapor Intrusion Indoor Air Criteria (2009).
The deep gas probes (GP19-01D GP19-02D, GP19-03D, and GP19-04D) are compared against the Deep 5-feet Non Residential criteria listed in the MDEQ Draft Proposed Vapor Intrusion Indoor Air Criteria (2009).
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The associated value is qualified as an estimated quantity.

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation (VSIC) Criteria*	*Nonresidential Direct Contact Criteria*	*Nonresidential Protection Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Screening Levels*	*PAOC 24* *SB24-01* *0-3 ft BGS* *SO-17303-060305-DR-0723* *06/03/2005*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
VOCs													
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID	440	-
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8	460	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6	870	0.04 U
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6	920	0.04 U
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15	890	0.04 U
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	0.04 U
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830		830	-
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100	0.2 U
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57	110	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2	0.086 J[e]
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11	890	0.2 U
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28	210	0.08 U
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2	1200	0.04 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6	550	0.04 U
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1	94	-
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68	170	0.08 U
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18	620	-
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36	-	0.08 U
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220		7300	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	0.6 U
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID	2500	2 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID	2700	2 U
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34	110000	0.6 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4	400	0.04 U
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360		760	-
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID	1500	0.08 U
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID	870	0.08 U
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7	2200	0.16 U
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID	280	0.2 U
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	0.04 U
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	0.04 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22	950	0.2 U
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	0.04 U
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID	1100	0.2 U
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	0.04 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.04 U
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.96 U
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000		220000	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID	610	0.04 U
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000		2000	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID	1000	0.08 U
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID	7400	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	0.04 U

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation (VSIC) Criteria*	*Nonresidential Direct Contact Criteria*	*Nonresidential Protection Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Screening Levels*	*PAOC 24* *SB24-01* *0-3 ft BGS* *SO-17303-060305-DR-0723* *06/03/2005*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2	390	0.2 U
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.96 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.038 J
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140	5900	0.2 U
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30	2300	0.2 U
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID	10000	-
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1	520	0.04 U
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	0.04 U
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	0.08 U
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30	1400	0.04 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.04 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560		560	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7	550	0.2 U
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	0.032 U
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	0.12 U
SVOCs													
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	0.26 U
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	0.26 U
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33	1800	0.26 U
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-	0.26 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.15 U
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	0.26 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300		-	0.26 U
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36	19000	0.26 U
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	0.26 U
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	0.26 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.2 U
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID	-	0.26 U
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2	-	1.6 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.2 U
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190		-	0.15 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28	-	0.26 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.15 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	0.26 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.2 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.33 U
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	0.26 U

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
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YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation (VSIC) Criteria*	*Nonresidential Direct Contact Criteria*	*Nonresidential Protection Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Screening Levels*	*PAOC 24* *SB24-01* *0-3 ft BGS* *SO-17303-060305-DR-0723* *06/03/2005*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	0.26 U
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID	1100	0.26 U
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41	-	29000000	41	ID	-	0.018 J
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15	-	0.04 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	0.048 J
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	0.052 J
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	0.062 J
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	0.03 J
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	0.028 J
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.26 U
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1	2200	0.08 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL	10000	0.03 J
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120	310	0.26 U
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000	-		-	0.26 U
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-	0.26 U
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	0.055 J
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	0.26 U
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7	-	0.26 U
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2	740	0.26 U
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790		790	0.26 U
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID	140000	0.26 U
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730	-	4100000	730	5.5	-	0.12 J
Fluorene	mg/kg	-	150000	150000	150000	87000	890	-	4100000	890	5.3	-	0.014 J
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	0.26 U
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091	350	0.04 U
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID	720	0.26 U
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	0.26 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	0.027 J
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	0.26 U
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	0.26 U
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6	490	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2		1500	0.26 U
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700		-	0.26 U
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	0.15 U
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	0.091 J
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	0.26 U
Pyrene	mg/kg	-	780000	780000	780000	84000	480	-	2900000	480	ID	-	0.099 J
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation (VSIC) Criteria*	*Nonresidential Direct Contact Criteria*	*Nonresidential Protection Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Screening Levels*	*PAOC 24* *SB24-01* *0-3 ft BGS* *SO-17303-060305-DR-0723* *06/03/2005*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
Inorganics													
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID	-		-	-
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-	0.048 J
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-	2.6
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000	-	1250	-	36.7
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590	-	948	-	0.080 J
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-	0.19
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-	53.7[ei]
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-	5.6
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000	-	167	-	9.6
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID	-		-	-
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	31.9
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	60.0
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	38.5
Magnesium	mg/kg	-	NLV	NLV	NLV	-	22000	NLV	2900000	-		-	-
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-	239
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05	-	0.043
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000	-	166	-	10.3
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-	0.094 J
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-	0.038 J
Sodium	mg/kg	-	NLV	NLV	NLV	-	7000	NLV	ID	-		-	-
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-	0.080
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID	-	190	-	15.4
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID	-	377	-	41.2
Cyanide	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	-
PCBs													
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.26 U
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.049 J
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	0.049 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statwide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*
Sample Location:		***SB24-01***	***SB24-01***	***SB24-01***	***SB24-01***	***SB24-02***	***SB24-02***	***SB24-02***	***SB24-02***
Sample Depth:		***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***9-11 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***
Sample ID:		***SO-17303-060305-DR-0724***	***SO-17303-060305-DR-0725***	***SO-17303-060305-DR-0726***	***SO-17303-060305-DR-0727***	***SO-17303-060305-DR-0728***	***SO-17303-060305-DR-0729***	***SO-17303-060305-DR-0730***	***SO-17303-060305-DR-0731***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***
Sample Type:					***Duplicate***				
Parameter:	***Units***								
VOCs									
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,1,2-Trichloroethane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,1-Dichloroethane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,1-Dichloroethene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.014 J	0.04 U	0.04 U	0.04 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
1,2-Dichloroethane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.6 U	0.6 U	160 U	120 U	0.73 U	0.6 U	0.6 U	0.6 U
2-Hexanone	mg/kg	2 U	2 U	520 U	390 U	2.4 U	2 U	2 U	2 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2 U	2 U	520 U	390 U	2.4 U	2 U	2 U	2 U
Acetone	mg/kg	0.6 U	0.6 U	160 U	120 U	0.73 U	0.6 U	0.6 U	0.6 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.0086 J	0.021 J	**8.4 J[ei]**	**8[ei]**	0.049 U	0.04 U	0.04 U	0.04 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
Bromoform	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
Bromomethane (Methyl bromide)	mg/kg	0.16 U	0.16 U	42 U	31 U	0.2 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	mg/kg	0.022 J	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Chlorobenzene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Chloromethane (Methyl chloride)	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
cis-1,3-Dichloropropene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Cyclohexane	mg/kg	0.043 J	0.06 J	20 J	18 J	1.2 U	0.96 U	0.96 U	0.96 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.04 U	0.04 UJ	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.12	**0.87 J[i]**	**240[defhij]**	**250[defhij]**	0.049 U	0.04 U	0.36	**0.88[i]**

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*
Sample Location:		***SB24-01***	***SB24-01***	***SB24-01***	***SB24-01***	***SB24-02***	***SB24-02***	***SB24-02***	***SB24-02***
Sample Depth:		***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***9-11 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***
Sample ID:		***SO-17303-060305-DR-0724***	***SO-17303-060305-DR-0725***	***SO-17303-060305-DR-0726***	***SO-17303-060305-DR-0727***	***SO-17303-060305-DR-0728***	***SO-17303-060305-DR-0729***	***SO-17303-060305-DR-0730***	***SO-17303-060305-DR-0731***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***
Sample Type:					***Duplicate***				
Parameter:	***Units***								
Iodomethane	mg/kg	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.055 J	0.11 J	22 J[i]	26 J[i]	0.24 U	0.2 U	0.23	0.33
Methyl acetate	mg/kg	0.081 J	0.96 U	250 U	190 U	1.2 U	0.96 U	0.96 U	0.96 U
Methyl cyclohexane	mg/kg	0.18 J	0.36 J	160 J	120 J	0.034 J	0.96 U	0.3 J	0.75 J
Methyl tert butyl ether (MTBE)	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
Methylene chloride	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Tetrachloroethene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Toluene	mg/kg	0.08 U	0.08 U	21 U	2 J	0.098 U	0.08 U	0.08 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
trans-1,3-Dichloropropene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.04 U	0.04 U	10 U	7.8 U	0.049 U	0.04 U	0.04 U	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.08 U	0.08 U	21 U	16 U	0.098 U	0.08 U	0.08 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.2 U	0.2 U	52 U	39 U	0.24 U	0.2 U	0.2 U	0.2 U
Vinyl chloride	mg/kg	0.032 U	0.032 U	8.3 U	6.2 U	0.039 U	0.032 U	0.032 U	0.032 U
Xylenes (total)	mg/kg	0.03 J	0.15	700[defhij]	730[defhij]	0.15 U	0.12 U	0.12 U	0.12 U
SVOCs									
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,4,5-Trichlorophenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,4,6-Trichlorophenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,4-Dichlorophenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,4-Dimethylphenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,4-Dinitrophenol	mg/kg	0.15 U	0.15 U	0.3 U	1 U	0.15 U	0.15 U	1.5 U	6 U
2,4-Dinitrotoluene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2,6-Dinitrotoluene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2-Chloronaphthalene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2-Chlorophenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2-Methylnaphthalene	mg/kg	0.26 U	0.017 J	1	4	0.02 J	0.26 U	2.6 U	24[i]
2-Methylphenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
2-Nitroaniline	mg/kg	0.2 U	0.2 U	0.4 U	1.3 U	0.2 U	0.2 U	2 U	8 U
2-Nitrophenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 UJ	2.6 UJ	11 UJ
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	1.6 U	1.6 U	3.2 U	11 U	1.6 U	1.6 U	16 U	64 U
3-Nitroaniline	mg/kg	0.2 U	0.2 U	0.4 U	1.3 U	0.2 U	0.2 U	2 U	8 U
4,6-Dinitro-2-methylphenol	mg/kg	0.15 U	0.15 U	0.3 U	1 U	0.15 U	0.15 U	1.5 U	6 U
4-Bromophenyl phenyl ether	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
4-Chloro-3-methylphenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
4-Chloroaniline	mg/kg	0.15 U	0.15 U	0.3 U	1 U	0.15 U	0.15 U	1.5 U	6 U
4-Chlorophenyl phenyl ether	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
4-Methylphenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
4-Nitroaniline	mg/kg	0.2 U	0.2 U	0.4 U	1.3 U	0.2 U	0.2 U	2 U	8 U
4-Nitrophenol	mg/kg	0.33 U	0.33 U	0.66 U	2.2 U	0.33 U	0.33 U	3.3 U	13 U
Acenaphthene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*
Sample Location:		***SB24-01***	***SB24-01***	***SB24-01***	***SB24-01***	***SB24-02***	***SB24-02***	***SB24-02***	***SB24-02***
Sample Depth:		***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***9-11 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***
Sample ID:		***SO-17303-060305-DR-0724***	***SO-17303-060305-DR-0725***	***SO-17303-060305-DR-0726***	***SO-17303-060305-DR-0727***	***SO-17303-060305-DR-0728***	***SO-17303-060305-DR-0729***	***SO-17303-060305-DR-0730***	***SO-17303-060305-DR-0731***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***
Sample Type:					***Duplicate***				
Parameter:	***Units***								
Acenaphthylene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Acetophenone	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Anthracene	mg/kg	0.022 J	0.071 J	0.044 J	0.17 J	0.26 U	0.016 J	2.6 U	11 U
Atrazine	mg/kg	0.04 U	0.04 U	0.08 U	0.27 U	0.04 U	0.04 U	0.4 U	1.6 U
Benzaldehyde	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Benzo(a)anthracene	mg/kg	0.068 J	0.17 J	0.073 J	0.16 J	0.021 J	0.099 J	2.6 U	11 U
Benzo(a)pyrene	mg/kg	0.069 J	0.15 J	0.097 J	0.13 J	0.035 J	0.092 J	2.6 U	11 U
Benzo(b)fluoranthene	mg/kg	0.083 J	0.18 J	0.11 J	0.18 J	0.045 J	0.11 J	2.6 U	11 U
Benzo(g,h,i)perylene	mg/kg	0.044 J	0.076 J	0.058 J	1.8 U	0.036 J	0.055 J	2.6 U	11 U
Benzo(k)fluoranthene	mg/kg	0.045 J	0.07 J	0.05 J	1.8 U	0.017 J	0.054 J	2.6 U	11 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.26 U	0.26 U	0.078 J	0.29 J	0.26 U	0.26 U	2.6 U	1.4 J
bis(2-Chloroethoxy)methane	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
bis(2-Chloroethyl)ether	mg/kg	0.08 U	0.08 U	0.16 U	0.53 U	0.08 U	0.08 U	0.8 U	3.2 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.26 U	0.042 J	0.092 J	0.13 J	0.26 U	0.26 U	2.6 U	11 U
Butyl benzylphthalate (BBP)	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Caprolactam	mg/kg	0.03 J	0.033 J	0.53 U	1.8 U	0.036 J	0.26 U	2.6 U	11 U
Carbazole	mg/kg	0.26 U	0.048 J	0.036 J	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Chrysene	mg/kg	0.078 J	0.17 J	0.089 J	0.2 J	0.029 J	0.1 J	2.6 U	11 U
Dibenz(a,h)anthracene	mg/kg	0.26 U	0.032 J	0.044 J	1.8 U	0.26 U	0.028 J	2.6 U	11 U
Dibenzofuran	mg/kg	0.26 U	0.022 J	0.034 J	0.21 J	0.26 U	0.26 U	2.6 U	1.1 J
Diethyl phthalate	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Dimethyl phthalate	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Di-n-butylphthalate (DBP)	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Fluoranthene	mg/kg	0.16 J	0.44 J	0.28 J	0.79 J	0.041 J	0.17 J	2.6 U	11 U
Fluorene	mg/kg	0.26 U	0.052 J	0.076 J	0.33 J	0.26 U	0.26 U	2.6 U	11 U
Hexachlorobenzene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Hexachlorobutadiene	mg/kg	0.04 U	0.04 U	0.08 U	0.27 U	0.04 U	0.04 U	0.4 U	1.6 U
Hexachlorocyclopentadiene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Hexachloroethane	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.038 J	0.067 J	0.056 J	1.8 U	0.026 J	0.047 J	2.6 U	11 U
Isophorone	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Naphthalene	mg/kg	0.26 U	0.04 J	**2[1]**	**9.3[1]**	0.26 U	0.26 U	2.6 U	**4.4 J[1]**
Nitrobenzene	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
N-Nitrosodi-n-propylamine	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
N-Nitrosodiphenylamine	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Pentachlorophenol	mg/kg	0.15 U	0.15 U	0.3 U	1 U	0.15 U	0.15 U	1.5 U	6 U
Phenanthrene	mg/kg	0.088 J	0.34 J	0.21 J	1.1 J	0.019 J	0.049 J	0.63 J	**4.4 J[1]**
Phenol	mg/kg	0.26 U	0.26 U	0.53 U	1.8 U	0.26 U	0.26 U	2.6 U	11 U
Pyrene	mg/kg	0.12 J	0.32	0.14 J	0.42 J	0.038 J	0.14 J	2.6 U	11 U
Pyridine	mg/kg	-	-	-	-	-	-	-	-

APPENDIX F.3

PAOC 24 - SOIL ANALYTICAL RESULTS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*	*PAOC 24*
Sample Location:		***SB24-01***	***SB24-01***	***SB24-01***	***SB24-01***	***SB24-02***	***SB24-02***	***SB24-02***	***SB24-02***
Sample Depth:		***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***	***9-11 ft BGS***	***0-3 ft BGS***	***3-6 ft BGS***	***6-9 ft BGS***	***9-11 ft BGS***
Sample ID:		***SO-17303-060305-DR-0724***	***SO-17303-060305-DR-0725***	***SO-17303-060305-DR-0726***	***SO-17303-060305-DR-0727***	***SO-17303-060305-DR-0728***	***SO-17303-060305-DR-0729***	***SO-17303-060305-DR-0730***	***SO-17303-060305-DR-0731***
Sample Date:		***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***	***06/03/2005***
Sample Type:					***Duplicate***				
Parameter:	***Units***								
Inorganics									
Aluminum	mg/kg	-	-	-	-	-	-	-	-
Antimony	mg/kg	0.087 J	0.046 J	0.49 J	0.42 J	0.084 J	0.084 J	0.033 J	0.042 J
Arsenic	mg/kg	2.8	2.5	3.6	2.6	2.5	2.2	1.4	2.4
Barium	mg/kg	33.2	34.6	73.7	**2390[ei]**	21.5	15.1	17.8	19.7
Beryllium	mg/kg	0.13 J	0.24	0.13 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cadmium	mg/kg	0.20	0.16	0.92	**6.8[e]**	0.11	0.12	0.045 J	0.11
Calcium	mg/kg	-	-	-	-	-	-	-	-
Chromium	mg/kg	**23.6[i]**	**9.0[i]**	**17.8[i]**	**53.7[ei]**	**8.7[i]**	**7.2[i]**	**6.7[i]**	**8.1[i]**
Cobalt	mg/kg	3.4	3.2	**7.3[ei]**	2.9	2.9	2.6	2.2	2.7
Copper	mg/kg	9.8	8.4	16.4	9.7	9.1	7.7	5.3	8.9
Iron	mg/kg	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	14.5	12.2	88.6	44.4	22.3	7.3	11.9	11.4
Lead - fine fraction	mg/kg	17.7	37.2	81.6	101	19.6	8.9	17.9	13.6
Lead - total (calculated by fine/coarse fraction)	mg/kg	15.5	18.7	87.1	62.9	21.8	7.3	13.7	12.2
Magnesium	mg/kg	-	-	-	-	-	-	-	-
Manganese	mg/kg	254	308	184	164	173	152	142	129
Mercury	mg/kg	0.041	0.018 J	0.031 J	0.017 J	0.040 U	0.040 U	0.0056 J	0.0087 J
Nickel	mg/kg	7.6	7.7	16.6	8.1	7.0	7.4	5.7	7.0
Potassium	mg/kg	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.12 J	0.15 J	**0.79[i]**	**2.6[i]**	0.096 J	0.16 U	0.085 J	0.10 J
Silver	mg/kg	0.042 J	0.044 J	0.062 J	0.036 J	0.030 J	0.029 J	0.021 J	0.026 J
Sodium	mg/kg	-	-	-	-	-	-	-	-
Thallium	mg/kg	0.094	0.090	0.11	0.060 J	0.055 J	0.051 J	0.040 J	0.051 J
Vanadium	mg/kg	11.3	10.7	18.4	9.7	11.5	9.1	9.1	9.6
Zinc	mg/kg	39.2	25.3	92.0	194	25.4	17.2	14.5	17.1
Cyanide	mg/kg	-	-	-	-	-	-	-	-
PCBs									
Aroclor-10(PCB-1016)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1221)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1232)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1242)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1248)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1254)	mg/kg	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Aroclor-12(PCB-1260)	mg/kg	0.069 J	0.023 J	0.051 J	0.077 J	0.2 J	0.037 J	0.03 J	0.058 J
Total PCBs	mg/kg	0.069 J	0.26 U	0.051 J	0.077 J	0.2 J	0.037 J	0.26 U	0.058 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater*	*Groundwater Surface Water*	*il Saturation Concentratio*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source Volatile*	*Direct Contact*	*Drinking Water*	*Soil Volatilization to*	*Particulate Soil*	*Contact Protection*	*Interface Protection Criteria*	*Screening Levels*	*SB-2-30*	*SB-2-30*	*SB-2-31*	*SB-2-31*	*SB-2-31*
Sample Depth:			*Source Thickness*	*Source Thickness*	*Soil Inhalation Criteria (VSIC) &*	*Criteria*	*Protection Criteria*	*Indoor Air Inhalation Criteria*	*Inhalation Criteria*	*Criteria*			*0-2 ft BGS*	*2-4 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0.17-0.67 ft BGS*
Sample ID:					*RBSLs*								*SB-2-30S0E2*	*SB-2-30S2E4*	*SB-2-31S2E4*	*SB-2-31S4E6*	*SB-2-31S0E1*
Sample Date:													*09/16/1996*	*09/16/1996*	*09/16/1996*	*09/16/1996*	*12/16/1996*
Sample Type:																	
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*					
VOCs																	
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	-	-	-	-	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	-	-	-	-	-
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	-	-	-	-	-
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	-	-	-	-	-
SVOCs																	
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	-	-	-	-	-
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41		29000000	41	ID	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	-	-	-	-	-
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	-	-	-	-	-
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730		4100000	730	5.5	-	-	-	-	-	-
Fluorene	mg/kg	-	150000	150000	150000	87000	890		4100000	890	5.3	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-	-	-	-
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	-	-	-	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-	-	-	-
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	-	-	-	-	-
Pyrene	mg/kg	-	780000	780000	780000	84000	480		2900000	480	ID	-	-	-	-	-	-
Inorganics																	
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	13	2300[de]	220	96000[degi]	5
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-2-32*	*SB-2-32*	*SB-2-32*	*SB-2-32*	*SB-2-33*	*SB-2-33*	*SB-2-33*	*SB-2-33*	*SB-2-33*	*SB-2-34*	*SB-2-34*	*SB-2-34*	*SB-2-34*	*SB-2-34*	*SB-2-34*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-1*	*SB-18-2*
Sample Depth:		*4-6 ft BGS*	*6-8 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*0.67-2.2 ft BGS*	*0.17-0.67 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*12-13 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*4-6 ft BGS*
Sample ID:		*SB-2-32S4E6*	*SB-2-32S6E8*	*SB-2-32S0E1*	*SB-2-32S1E2*	*SB-2-33S6E8*	*SB-2-33S8E10*	*SB-2-33S1E2*	*SB-2-33S2E4*	*SB-2-33S0E1*	*SB-2-34S8E10*	*SB-2-31S2E4*	*SB-2-34S2E4*	*SB-2-34S4E6*	*SB-2-34S1E2*	*SB-2-34S0E1*	*SB-18-1S0E1*	*SB-18-1S0E1*	*SB-18-1S10E12*	*SB-18-1S12E13*	*SB-18-1S1E2*	*SB-18-1S2E4*	*SB-18-1S4E6*	*SB-18-1S6E8*	*SB-18-1S8E10*	*SB-18-2S4E6*
Sample Date:		*09/16/1996*	*09/16/1996*	*12/16/1996*	*12/16/1996*	*09/16/1996*	*09/16/1996*	*12/16/1996*	*12/16/1996*	*12/17/1996*	*09/16/1996*	*12/01/1996*	*12/16/1996*	*12/16/1996*	*12/18/1996*	*12/24/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*
Sample Type:																									
Parameter:	*Units*																								
VOCs																									
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	3.3[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	24[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	17[ei]	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																									
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	4.4
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	4.7[i]
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42	-	-	-	-	-	-	-	0.84
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	0.55
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	1.1
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	1.1
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	-	-	1.8
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-	1.4
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	1.2
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	0.33 U
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-	-	-	-	-	-	-	2.2
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	-	-	-	-	-	-	1
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	1.6
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	1.1[i]
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8[i]	-	-	-	-	-	-	-	2.1
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-	-	-	-	-	-	-	2.1
Inorganics																									
Lead	mg/kg	940[de]	11000[dei]	450	740[e]	1800[de]	31000[dei]	110	77	140	120	-	4	8	160	6	-	870[e]	300	810[e]	2900[de]	820[e]	1800[de]	4	3000[de]	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-2*	*SB-18-2*	*SB-18-2*	*SB-18-2*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-3*	*SB-18-4*	*SB-18-4*	*SB-18-4*	*SB-18-4*	*SB-18-4*	*SB-18-4*	*SB-18-4*	*SB-18-5*	*SB-18-5*	*SB-18-5*
Sample Depth:		*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*4-6 ft BGS*	*10-11 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*0.67-2.2 ft BGS*
Sample ID:		*SB-18-2S0E1*	*SB-18-2S1E2*	*SB-18-2S2E4*	*SB-18-2S4E6*	*SB-18-3S0E1*	*SB-18-3S10E11*	*SB-18-3S4E6*	*SB-18-3S10E11*	*SB-18-3S0E1*	*SB-18-3S1E2*	*SB-18-3S2E4*	*SB-18-3S4E6*	*SB-18-3S6E8*	*SB-18-3S8E10*	*SB-18-4S0E1*	*SB-18-4S0E1*	*SB-18-4S10E11*	*SB-18-4S1E2*	*SB-18-4S2E4*	*SB-18-4S4E6*	*SB-18-4S6E8*	*SB-18-4S8E10*	*SB-18-5S2E4*	*SB-18-5S0E1*	*SB-18-5S1E2*
Sample Date:		*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/11/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/12/1996*	*12/12/1996*
Sample Type:																									
Parameter:	*Units*																								
VOCs																									
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																									
1-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	17	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	9	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	17[i]	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	8.8 U	-	-
Acenaphthene	mg/kg	-	-	-	-	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	40[i]	-	-
Acenaphthylene	mg/kg	-	-	-	-	0.33 U	3.7	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	8.8 U	-	-
Anthracene	mg/kg	-	-	-	-	0.33 U	3.3 U	0.9	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	48[eh]	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	0.6	3.3 U	1.7	-	-	-	-	-	-	-	0.72	-	-	-	-	-	-	-	220[d]	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	0.46	3.3 U	2.8	-	-	-	-	-	-	-	0.52	-	-	-	-	-	-	-	92[d]	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	0.87	3.3 U	2.2	-	-	-	-	-	-	-	0.64	-	-	-	-	-	-	-	150[d]	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	0.47	3.3 U	2.2	-	-	-	-	-	-	-	0.51	-	-	-	-	-	-	-	45	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	0.33 U	3.3 U	1.8	-	-	-	-	-	-	-	0.82	-	-	-	-	-	-	-	150	-	-
Chrysene	mg/kg	-	-	-	-	0.74	3.3 U	2.1	-	-	-	-	-	-	-	0.84	-	-	-	-	-	-	-	220	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	14[d]	-	-
Fluoranthene	mg/kg	-	-	-	-	1.4	4.7	4	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-	280[i]	-	-
Fluorene	mg/kg	-	-	-	-	0.33 U	3.3 U	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	34[i]	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	0.64	3.3 U	3.1	-	-	-	-	-	-	-	0.52	-	-	-	-	-	-	-	63	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	0.33 U	4.8[i]	0.33 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	27[i]	-	-
Phenanthrene	mg/kg	-	-	-	-	0.63	6.7[i]	2.3[i]	-	-	-	-	-	-	-	0.77	-	-	-	-	-	-	-	280[beei]	-	-
Pyrene	mg/kg	-	-	-	-	1.1	6.3	3.9	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	210	-	-
Inorganics																									
Lead	mg/kg	5300[de]	7300[de]	670	1400[de]	-	-	-	3200[de]	190	680	2200[de]	240	450	1600[de]	-	65	79	2000[de]	1800[de]	2000[de]	1700[de]	710[e]	-	97	710[e]
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-5*	*SB-18-5*	*SB-18-5*	*SB-18-5*	*SB-18-6*	*SB-18-6*	*SB-18-6*	*SB-18-6*	*SB-18-6*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-7*	*SB-18-8*	*SB-18-8*	*SB-18-8*	*SB-18-8*	*SB-18-8*	*SB-18-8*	*SB-18-8*
Sample Depth:		*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*4-6 ft BGS*	*8-0.84 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.17-0.67 ft BGS*	*0.17-0.67 ft BGS*	*10.2-12.2 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*
Sample ID:		*SB-18-5S2E4*	*SB-18-5S4E6*	*SB-18-5S6E8*	*SB-18-5S8E10*	*SB-18-6S4E6*	*SB-18-6S0E1*	*SB-18-6S1E2*	*SB-18-6S2E4*	*SB-18-6S4E6*	*SB-18-7S0E1*	*SB-18-7S4E6*	*SB-18-7S8E1*	*SB-18-7S0E1*	*SB-18-7S1E2*	*SB-18-7S2E4*	*SB-18-7S4E6*	*SB-18-7S6E8*	*SB-18-7S8E10*	*SB-18-8S0E1*	*SB-18-8S0E1*	*SB-18-8S10E12*	*SB-18-8S1E2*	*SB-18-8S2E4*	*SB-18-8S4E6*	*SB-18-8S6E8*
Sample Date:		*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																									
Parameter:	*Units*																								
VOCs																									
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																									
1-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	0.8 U	15 U	3.8 U	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	0.8 U	15 U	3.8 U	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	1.2	-	-	-	-	0.8 U	**21[i]**	7.3	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	0.8 U	15 U	2.8 U	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	2.2	-	-	-	-	0.8 U	31	11	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	5.3	-	-	-	-	7	**120[d]**	33	-	-	-	-	-	-	11	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	4.6	-	-	-	-	4 U	**42[d]**	**14[d]**	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	7.6	-	-	-	-	5.9	76	25	-	-	-	-	-	-	7	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	3	-	-	-	-	1.8	24	7.8	-	-	-	-	-	-	7.7	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	3 U	-	-	-	-	5.9	76	25	-	-	-	-	-	-	7	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	5.6	-	-	-	-	7	120	33	-	-	-	-	-	-	11	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	3 U	-	-	-	-	0.8 U	7.7 U	7.7 U	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	**13[i]**	-	-	-	-	**7.1[i]**	**110[i]**	**36[i]**	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	0.94	-	-	-	-	0.8 U	**19[i]**	**6.9[i]**	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	5.1	-	-	-	-	2.8	31	11	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	0.8 U	**18[i]**	**5.8[i]**	-	-	-	-	-	-	3.5 U	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	**8.3[i]**	-	-	-	-	**3.8[i]**	**98[i]**	**35[i]**	-	-	-	-	-	-	**10[i]**	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	120	-	-	-	-	5.7	88	28	-	-	-	-	-	-	8.5	-	-	-	-	-	-
Inorganics																									
Lead	mg/kg	**8100[dei]**	**2300[de]**	140	16	-	560	**980[de]**	**27000[dei]**	**1300[de]**	-	-	-	**1800[de]**	**1100[de]**	680	**3000[de]**	**8500[dei]**	500	-	11	3	**720[e]**	120	3	6
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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ft BGS - feet below ground surface
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U - Not present at or above the associated value
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VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-8*	*SB-18-9*	*SB-18-9*	*SB-18-9*	*SB-18-9*	*SB-18-9*	*SB-18-10*	*SB-18-10*	*SB-18-10*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-11*	*SB-18-12*	*SB-18-12*	*SB-18-12*	*SB-18-12*	*SB-18-12*	*SB-18-12*
Sample Depth:		*8.2-10.2 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*8-10 ft BGS*	*6-8 ft BGS*	*0-0.5 ft BGS*	*10-11 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0.17-0.67 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*
Sample ID:		*SB-18-8S8E10*	*SB-18-9S4E6*	*SB-18-9S0E1*	*SB-18-9S1E2*	*SB-18-9S2E4*	*SB-18-9S4E6*	*SB-18-10S0E1*	*SB-18-10S1E2*	*SB-18-10S8E10*	*SB-18-11S6E8*	*SB-18-11S0E1*	*SB-18-11S10E11*	*SB-18-11S1E2*	*SB-18-11S2E4*	*SB-18-11S4E6*	*SB-18-11S6E8*	*SB-18-11S8E10*	*SB-18-12S0E1*	*SB-18-12S0E1*	*SB-18-12S10E12*	*SB-18-12S1E2*	*SB-18-12S2E4*	*SB-18-12S4E6*
Sample Date:		*12/09/1996*	*12/01/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/01/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*
Sample Type:																							
Parameter:	*Units*																						
VOCs																							
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	0.33 U	-	-	-	-	0.54	1.4	4.3	1.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	0.33 U	-	-	-	-	0.55	1.4	3.9	9.1[i]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Acenaphthene	mg/kg	-	0.33 U	-	-	-	-	3.5	6.7 U	1.3	32[i]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Acenaphthylene	mg/kg	-	0.33 U	-	-	-	-	0.33 U	0.33 U	0.68	8.8 U	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Anthracene	mg/kg	-	0.33 U	-	-	-	-	6.2	12	1.7	44[ch]	-	-	-	-	-	-	-	0.45	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	0.33 U	-	-	-	-	12	21	3.1	200[d]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	0.33 U	-	-	-	-	5.9	9[d]	3.3 U	80[d]	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	0.33 U	-	-	-	-	10	16	3.3 U	140[d]	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	0.33 U	-	-	-	-	3.4	6.7 U	3.3 U	36	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	0.33 U	-	-	-	-	3.3 U	6.7 U	3.3 U	140	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Chrysene	mg/kg	-	0.33 U	-	-	-	-	10	21	3.8	200	-	-	-	-	-	-	-	0.78	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	0.33 U	-	-	-	-	3.3 U	6.7 U	3.3 U	14[d]	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Fluoranthene	mg/kg	-	0.33 U	-	-	-	-	27[i]	45[i]	5.7[i]	230[i]	-	-	-	-	-	-	-	2.4	-	-	-	-	-
Fluorene	mg/kg	-	0.33 U	-	-	-	-	3	6.7 U	3.3 U	31[i]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	0.33 U	-	-	-	-	5.6	6.7 U	3.3 U	61	-	-	-	-	-	-	-	2.7 U	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	0.33 U	-	-	-	-	1.8[i]	4.7[i]	1.8[i]	37[i]	-	-	-	-	-	-	-	0.33 U	-	-	-	-	-
Phenanthrene	mg/kg	-	0.33 U	-	-	-	-	16[i]	36[i]	5[i]	220[bcei]	-	-	-	-	-	-	-	2.4[i]	-	-	-	-	-
Pyrene	mg/kg	-	0.33 U	-	-	-	-	19	37	5.6	180	-	-	-	-	-	-	-	2	-	-	-	-	-
Inorganics																							
Lead	mg/kg	3	-	9200[dei]	2900[de]	170000[degi]	460	-	-	-	-	4500[de]	2	4900[de]	1500[de]	1700[de]	3100[de]	8	-	23	2	56	230	9
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-12*	*SB-18-12*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-13*	*SB-18-14*	*SB-18-14*	*SB-18-14*	*SB-18-14*	*SB-18-14*	*SB-18-14*	*SB-18-14*	*SB-18-16*	*SB-18-16*	*SB-18-16*	*SB-18-16*	*SB-18-16*	*SB-18-17*
Sample Depth:		*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0-0.5 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*8-10 ft BGS*	*6-8 ft BGS*	*0.5-2 ft BGS*	*0-0.5 ft BGS*	*2-4 ft BGS*	*4-5.5 ft BGS*	*6-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-12S6E8*	*SB-18-12S8E10*	*SB-18-13S0S1*	*SB-18-13S0E1*	*SB-18-13S10E12*	*SB-18-13S1E2*	*SB-18-13S2E4*	*SB-18-13S4E6*	*SB-18-13S6E8*	*SB-18-13S8E10*	*SB-18-14S2E4*	*SB-18-14S0E1*	*SB-18-14S1E2*	*SB-18-14S2E4*	*SB-18-14S4E6*	*SB-18-14S6E10*	*SB-18-14S6E8*	*SB-18-16S1E2*	*SB-18-16S0E1*	*SB-18-16S2E4*	*SB-18-16S4E6*	*SB-18-16S6E2*	*SB-18-17S2E4*
Sample Date:		*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*
Sample Type:																							
Parameter:	*Units*																						
VOCs																							
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	1.8 U	-	-	-	-	-	-	9	-	-	-	-	0.33 U
2-Methylnaphthalene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	1.8 U	-	-	-	-	-	-	13[i]	-	-	-	-	0.33 U
Acenaphthene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	2.5	-	-	-	-	-	-	67[d]	-	-	-	-	0.33 U
Acenaphthylene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	1.8 U	-	-	-	-	-	-	8.1 U	-	-	-	-	0.33 U
Anthracene	mg/kg	-	-	0.64	-	-	-	-	-	-	-	3.5	-	-	-	-	-	-	130[eh]	-	-	-	-	0.33 U
Benzo(a)anthracene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	12	-	-	-	-	-	-	450[d]	-	-	-	-	0.33 U
Benzo(a)pyrene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	4.3	-	-	-	-	-	-	130[d]	-	-	-	-	0.33 U
Benzo(b)fluoranthene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	7.5	-	-	-	-	-	-	290[d]	-	-	-	-	0.33 U
Benzo(g,h,i)perylene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	2.8	-	-	-	-	-	-	75	-	-	-	-	0.33 U
Benzo(k)fluoranthene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	7.5	-	-	-	-	-	-	290	-	-	-	-	0.33 U
Chrysene	mg/kg	-	-	1	-	-	-	-	-	-	-	12	-	-	-	-	-	-	450	-	-	-	-	0.33 U
Dibenz(a,h)anthracene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	7.3 U	-	-	-	-	-	-	29[d]	-	-	-	-	0.33 U
Fluoranthene	mg/kg	-	-	2.4	-	-	-	-	-	-	-	13[i]	-	-	-	-	-	-	520[i]	-	-	-	-	0.33 U
Fluorene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	57[d]	-	-	-	-	0.33 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	2.7 U	-	-	-	-	-	-	-	7.3 U	-	-	-	-	-	-	24	-	-	-	-	0.33 U
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	0.33 U	-	-	-	-	-	-	-	2.2[i]	-	-	-	-	-	-	50[i]	-	-	-	-	0.33 U
Phenanthrene	mg/kg	-	-	2.9[i]	-	-	-	-	-	-	-	11[i]	-	-	-	-	-	-	440[bcei]	-	-	-	-	0.33 U
Pyrene	mg/kg	-	-	2	-	-	-	-	-	-	-	9.1	-	-	-	-	-	-	450	-	-	-	-	0.33 U
Inorganics																							
Lead	mg/kg	4	5	-	43	3	12	4	4	4	3	-	3300[de]	10000[dei]	1200[de]	1200[de]	670	480	-	1100[de]	140	1400[de]	1500[de]	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-17*	*SB-18-17*	*SB-18-17*	*SB-18-18*	*SB-18-18*	*SB-18-18*	*SB-18-18*	*SB-18-18*	*SB-18-18*	*SB-18-18*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-19*	*SB-18-46*	*SB-18-49*	*SB-18-49*	*SB-18-49*	*SB-18-49*
Sample Depth:		*0-0.5 ft BGS*	*2-3 ft BGS*	*6-2 ft BGS*	*2-4 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-9 ft BGS*	*0.17-0.67 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2-2.5 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*
Sample ID:		*SB-18-17S0E1*	*SB-18-17S2E3*	*SB-18-17S6E2*	*SB-18-18S2E4*	*SB-18-18S0E1*	*SB-18-18S1E2*	*SB-18-18S2E4*	*SB-18-18S4E6*	*SB-18-18S6E8*	*SB-18-18S8E9*	*SB-18-19S0E1*	*SB-18-19S0E1*	*SB-18-19S10E12*	*SB-18-19S1E2*	*SB-18-19S2E4*	*SB-18-19S4E6*	*SB-18-19S6E8*	*SB-18-19S8E10*	*SB-18-46S2E3*	*SB-18-49S2E4*	*SB-18-49S0E1*	*SB-18-49S10E12*	*SB-18-49S1E2*
Sample Date:		*12/11/1996*	*12/11/1996*	*12/11/1996*	*12/01/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/12/1996*	*12/01/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/09/1996*	*12/01/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*
Sample Type:																							
Parameter:	*Units*																						
VOCs																							
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																							
1-Methylnaphthalene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	17	0.33 U	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	**14[i]**	0.33 U	-	-	-
Acenaphthene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	**9[i]**	0.33 U	-	-	-
Acenaphthylene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Anthracene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.69	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	0.8	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	17	0.48	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	0.47	-	-	-	-	-	-	2.8 U	-	-	-	-	-	-	-	8.7 U	0.61	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	0.45	-	-	-	-	-	-	2.8 U	-	-	-	-	-	-	-	9.2	0.95	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	0.45	-	-	-	-	-	-	2.8 U	-	-	-	-	-	-	-	9.2	0.33 U	-	-	-
Chrysene	mg/kg	-	-	-	0.8	-	-	-	-	-	-	0.99	-	-	-	-	-	-	-	17	0.55	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	2.8 U	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Fluoranthene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	2.4	-	-	-	-	-	-	-	**18[i]**	0.78	-	-	-
Fluorene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.33 U	-	-	-	-	-	-	-	**9.3[i]**	0.33 U	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	2.8 U	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	0.36 U	-	-	-	-	-	-	0.36	-	-	-	-	-	-	-	8.7 U	0.33 U	-	-	-
Phenanthrene	mg/kg	-	-	-	0.64	-	-	-	-	-	-	**2.9[i]**	-	-	-	-	-	-	-	**29[i]**	0.33 U	-	-	-
Pyrene	mg/kg	-	-	-	0.61	-	-	-	-	-	-	1.9	-	-	-	-	-	-	-	12	0.8	-	-	-
Inorganics																								
Lead	mg/kg	86	4	12	-	280	**720[e]**	29	220	110	4	-	54	5	**2200[de]**	9	38	5	7	-	-	27	3	94
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-49*	*SB-18-49*	*SB-18-49*	*SB-18-49*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-50*	*SB-18-52*	*SB-18-52*	*SB-18-52*	*SB-18-52*	*SB-18-52*	*SB-18-52*	*SB-18-52*	*SB-18-53*	*SB-18-53*	*SB-18-53*	*SB-18-53*
Sample Depth:		*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*2.2-4.2 ft BGS*	*0.17-0.67 ft BGS*	*10.2-11.5 ft BGS*	*0.67-2.2 ft BGS*	*2.2-4.2 ft BGS*	*4.2-6.2 ft BGS*	*6.2-8.2 ft BGS*	*8.2-10.2 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*
Sample ID:		*SB-18-49S2E4*	*SB-18-49S4E6*	*SB-18-49S6E8*	*SB-18-49S8E10*	*SB-18-50S2E4*	*SB-18-50S0E1*	*SB-18-50S10E12*	*SB-18-50S1E2*	*SB-18-50S2E4*	*SB-18-50S4E6*	*SB-18-50S6E8*	*SB-18-50S8E10*	*SB-18-52S0E1*	*SB-18-52S10E12*	*SB-18-52S1E2*	*SB-18-52S2E4*	*SB-18-52S4E6*	*SB-18-52S6E8*	*SB-18-52S8E10*	*SB-18-53S0E1*	*SB-18-53S10E12*	*SB-18-53S1E2*	*SB-18-53S2E4*
Sample Date:		*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/01/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*12/18/1996*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*
Sample Type:																								
Parameter:	*Units*																							
VOCs																								
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																								
1-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	0.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	0.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	0.33 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	0.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics																								
Lead	mg/kg	130	4	8	3	-	65	120	52	**11000[dei]**	**12000[dei]**	**6600[de]**	**10000[dei]**	82	2	5	6	8	23	2	26	2	15	5
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4A

PAOC 29 - SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB-18-53*	*SB-18-53*	*SB-18-53*	*SB-18-55*	*SB-18-55*	*SB-18-55*	*SB-18-55*	*SB-18-55*	*SB-18-55*	*SB-18-55*	*SB19-10*	*SB19-10*	*SB19-10*	*SB19-10*	*SB19-10*	*SB19-10*
Sample Depth:		*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*10-12 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*	*0-0.5 ft BGS*	*0.5-2 ft BGS*	*2-4 ft BGS*	*4-6 ft BGS*	*6-8 ft BGS*	*8-10 ft BGS*
Sample ID:		*SB-18-53S4E6*	*SB-18-53S6E8*	*SB-18-53S8E10*	*SB-18-55S0E1*	*SB-18-55S10E12*	*SB-18-55S1E2*	*SB-18-55S2E4*	*SB-18-55S4E6*	*SB-18-55S6E8*	*SB-18-55S8E10*	*SB-19-10S0E1*	*SB-19-10S1E2*	*SB-19-10S2E4*	*SB-19-10S4E6*	*SB-19-10S6E8*	*SB-19-10S8E10*
Sample Date:		*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*03/22/1997*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*	*12/10/1996*
Sample Type:																	
Parameter:	*Units*																
VOCs																	
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																	
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics																	
Lead	mg/kg	8	2	3	52	3	47	14	7	6	7	2000[de]	800[e]	1400[de]	52000[degi]	170	2200[de]
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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J - The associated value is an estimated concentration
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NLV - Hazardous substance is not likely to volatilize under most conditions
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U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria*	*Nonresidential Particulate Soil Inhalation Criteria*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Screening Levels*	*PAOC 29 MW19-12 0-2 ft BGS S-17303-111903-DD-215 11/19/2003*	*PAOC 29 MW19-12 11.5-13.5 ft BGS S-17303-111903-DD-216 11/19/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
VOCs														
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID	440	-	-
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8	460	0.047 U	0.057 U
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6	870	0.094 U	0.11 U
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6	920	0.047 U	0.057 U
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15	890	0.047 U	0.057 U
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	0.047 U	0.057 U
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830		830	-	-
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100	0.23 U	0.58
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57	110	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2	0.23 U	0.28 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11	890	0.23 U	0.28 U
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28	210	0.094 U	0.11 U
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2	1200	0.047 U	0.057 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6	550	0.047 U	0.057 U
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1	94	-	-
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68	170	0.094 U	0.14
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18	620	-	-
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36	-	0.094 U	0.11 U
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220		7300	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	0.7 U	0.85 U
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID	2500	2.3 U	2.8 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID	2700	2.3 U	2.8 U
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34	110000	0.7 U	0.85 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4	400	0.047 U	0.018 J
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360		760	-	-
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID	1500	0.094 U	0.11 U
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID	870	0.094 U	0.11 U
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7	2200	0.23 U	0.28 U
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID	280	0.23 U	0.032 J
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	0.047 U	0.057 U
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	0.047 U	0.057 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22	950	0.23 U	0.28 U
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	0.047 U	0.057 U
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID	1100	0.23 U	0.28 U
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	0.047 U	0.041 J
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.047 U	0.057 U
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.1 U	0.089 J
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000		220000	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID	610	0.047 U	0.057 U
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000		2000	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID	1000	0.094 U	0.11 U
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID	7400	-	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	0.047 U	0.028 J
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2	390	0.23 U	0.028 J
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.1 U	0.29 J

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater*	*Groundwater*	*Soil Saturation*	*PAOC 29*	*PAOC 29*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source*	*Direct Contact*	*Drinking Water*	*Soil Volatilization to*	*Particulate Soil*	*Contact*	*Surface Water*	*Screening Levels*	*MW19-12*	*MW19-12*
Sample Depth:			*Source Thickness*	*Source Thickness*	*Volatile Soil*	*Criteria*	*Protection Criteria*	*Indoor Air Inhalation Criteria*	*Inhalation Criteria*	*Protection Criteria*	*Interface Protection*		*0-2 ft BGS*	*11.5-13.5 ft BGS*
Sample ID:					*Inhalation Criteria*						*Criteria*		*S-17303-111903-DD-215*	*S-17303-111903-DD-216*
Sample Date:													*11/19/2003*	*11/19/2003*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.1 U	0.31 J
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140	5900	0.23 U	0.28 U
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30	2300	0.23 U	0.28 U
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID	10000	-	-
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1	520	0.047 U	0.057 U
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	0.047 U	0.057 U
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	0.094 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30	1400	0.047 U	0.057 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.047 U	0.057 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	0.31[e]	0.47[e]
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560		560	0.094 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7	550	0.23 U	0.28 U
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	0.094 U	0.15[e]
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	0.47 U	0.57 U
SVOCs														
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	-	-
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	-	-
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33	1800	-	-
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300		-	-	-
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36	19000	-	-
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	-	-
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID	-	-	-
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190		-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	-	-
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	-	-
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID	1100	-	-
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41		29000000	41	ID	-	-	-
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Statewide Default*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Nonresidential*	*Groundwater*	*Groundwater*	*Soil Saturation*	*PAOC 29*	*PAOC 29*
Sample Location:		*Background Levels*	*Finite VSIC for 2 Meter*	*Finite VSIC for 5 Meter*	*Infinite Source*	*Direct Contact*	*Drinking Water*	*Soil Volatilization to*	*Particulate Soil*	*Contact*	*Surface Water*	*Screening Levels*	*MW19-12*	*MW19-12*
Sample Depth:			*Source Thickness*	*Source Thickness*	*Volatile Soil*	*Criteria*	*Protection Criteria*	*Indoor Air Inhalation Criteria*	*Inhalation Criteria*	*Protection Criteria*	*Interface Protection*		*0-2 ft BGS*	*11.5-13.5 ft BGS*
Sample ID:					*Inhalation Criteria*						*Criteria*		*S-17303-111903-DD-215*	*S-17303-111903-DD-216*
Sample Date:													*11/19/2003*	*11/19/2003*
Sample Type:														
Parameter:	*Units*	*x*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	-	-
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	-	-
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1	2200	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL	10000	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120	310	-	-
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000			-	-	-
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-	-	-
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	-	-
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7	-	-	-
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2	740	-	-
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790		790	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID	140000	-	-
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730		4100000	730	5.5	-	-	-
Fluorene	mg/kg	-	150000	150000	150000	87000	890		4100000	890	5.3	-	-	-
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	-	-
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091	350	-	-
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID	720	-	-
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6	490	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2		1500	-	-
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700		-	-	-
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	-	-
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	-	-
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	-	-
Pyrene	mg/kg	-	780000	780000	780000	84000	480		2900000	480	ID	-	-	-
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-	-
Inorganics														
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID			-	4450	3320
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-	3.4	0.63 U
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-	2.3	3.2
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000		1250	-	38.8	19.5
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590		948	-	0.22 U	0.25 U
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-	0.64	**14.0[ei]**
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1810	4510
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-	**17.2[i]**	**11.0[i]**
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-	2.2	2.8
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000		167	-	6.3	5.6
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID			-	6000	6890
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	61.9	17.7
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
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PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels* *x*	*Nonresidential Finite VSIC for 2 Meter Source Thickness* *a*	*Nonresidential Finite VSIC for 5 Meter Source Thickness* *b*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria* *c*	*Nonresidential Direct Contact Criteria* *d*	*Nonresidential Drinking Water Protection Criteria* *e*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria* *f*	*Nonresidential Particulate Soil Inhalation Criteria* *g*	*Groundwater Contact Protection Criteria* *h*	*Groundwater Surface Water Interface Protection Criteria* *i*	*Soil Saturation Screening Levels* *j*	*PAOC 29 MW19-12 0-2 ft BGS S-17303-111903-DD-215 11/19/2003*	*PAOC 29 MW19-12 11.5-13.5 ft BGS S-17303-111903-DD-216 11/19/2003*
Magnesium	mg/kg	-	NLV	NLV	NLV		22000	NLV	2900000			-	1110	1750
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-	173	49.8
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05	-	0.024 J	0.13 U
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000		166	-	6.3	8.0
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	226 J	241 J
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-	0.12 J	9.1[ei]
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-	0.56 U	0.63 U
Sodium	mg/kg	-	NLV	NLV	NLV		7000	NLV	ID			-	112 U	126 U
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-	0.047 J	0.051 J
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID		190	-	8.1	10
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID		377	-	61.1	41.1
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	0.22 U	0.25 U
PCBs														
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-14*	*MW19-14*	*MW19-15*	*MW19-15*	*MW19-15*	*SB19-03*	*SB19-03*	*SB19-05*	*SB21-01*	*SB22-01*	*SB22-01*	*SB22-02*
Sample Depth:		*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*6-8 ft BGS*	*1-3 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-111203-DD-209*	*S-17303-111203-DD-210*	*S-17303-111103-DD-205*	*S-17303-111103-DD-206*	*S-17303-111103-DD-207*	*S-17303-111403-DD-229*	*S-17303-111403-DD-230*	*S-17303-111303-DD-212*	*S-17303-111203-DD-208*	*S-17303-051804-DCR-319*	*S-17303-051804-DCR-320*	*S-17303-051804-DCR-322*
Sample Date:		*11/12/2003*	*11/12/2003*	*11/11/2003*	*11/11/2003*	*11/11/2003*	*11/14/2003*	*11/14/2003*	*11/13/2003*	*11/12/2003*	*05/18/2004*	*05/18/2004*	*05/18/2004*
Sample Type:													
Parameter:	*Units*												
VOCs													
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
1,1,2,2-Tetrachloroethane	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
1,1,2-Trichloroethane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
1,1-Dichloroethane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
1,1-Dichloroethene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
1,2-Dichlorobenzene	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
1,2-Dichloroethane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.017 J
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	1.6 U	3.2 U	0.61 U	R	R	1.2 U	3.1 U	0.99 UJ	7.6 U	0.93 U	R	0.98 U
2-Hexanone	mg/kg	5.3 U	11 U	2 U	R	R	4.1 U	10 U	3.3 UJ	25 U	3.1 U	R	3.3 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	5.3 U	11 U	2 U	R	R	4.1 U	10 U	3.3 UJ	25 U	3.1 U	R	3.3 U
Acetone	mg/kg	1.6 U	3.2 U	0.61 U	0.23 J	0.3 J	1.2 U	3.1 U	0.99 UJ	7.6 U	0.93 U	0.5 J	0.98 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.11 U	0.21 U	0.041 U	0.018 J	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.041 J	R	0.065 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
Bromoform	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
Bromomethane (Methyl bromide)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
Carbon disulfide	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.09 J	R	0.031 J
Carbon tetrachloride	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Chlorobenzene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
Chloroform (Trichloromethane)	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Chloromethane (Methyl chloride)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
cis-1,2-Dichloroethene	mg/kg	0.11 U	0.21	0.041 U	0.03 J	R	0.12	0.29	0.066 UJ	**9.9**[e]	0.19	R	0.065 U
cis-1,3-Dichloropropene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Cyclohexane	mg/kg	2.5 U	5 U	0.98 U	R	R	2 U	5 U	1.6 UJ	0.22 J	1.5 U	R	1.6 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.11 U	0.21 U	0.041 U	0.042 J	R	0.083 U	0.21 U	0.17 J	**1.5**[i]	0.23	R	0.084
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.079 J	1.9 J	0.12 J	R	0.16 J
Methyl acetate	mg/kg	2.5 U	5 U	0.063 J	R	0.22 J	2 U	5 U	0.25 J	12 U	0.1 J	R	0.24 J

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-14*	*MW19-14*	*MW19-15*	*MW19-15*	*MW19-15*	*SB19-03*	*SB19-03*	*SB19-05*	*SB21-01*	*SB22-01*	*SB22-01*	*SB22-02*
Sample Depth:		*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*6-8 ft BGS*	*1-3 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-111203-DD-209*	*S-17303-111203-DD-210*	*S-17303-111103-DD-205*	*S-17303-111103-DD-206*	*S-17303-111103-DD-207*	*S-17303-111403-DD-229*	*S-17303-111403-DD-230*	*S-17303-111303-DD-212*	*S-17303-111203-DD-208*	*S-17303-051804-DCR-319*	*S-17303-051804-DCR-320*	*S-17303-051804-DCR-322*
Sample Date:		*11/12/2003*	*11/12/2003*	*11/11/2003*	*11/11/2003*	*11/11/2003*	*11/14/2003*	*11/14/2003*	*11/13/2003*	*11/12/2003*	*05/18/2004*	*05/18/2004*	*05/18/2004*
Sample Type:													
Parameter:	***Units***												
Methyl cyclohexane	mg/kg	2.5 U	5 U	0.042 J	0.029 J	R	2 U	5 U	0.25 J	3.8 J	0.13 J	R	0.13 J
Methyl tert butyl ether (MTBE)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
Methylene chloride	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Tetrachloroethene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
Toluene	mg/kg	0.21 U	0.42 U	0.082 U	0.02 J	R	0.17 U	0.42 U	0.022 J	1.9	0.055 J	R	0.026 J
trans-1,2-Dichloroethene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	1.9	0.062 U	R	0.065 U
trans-1,3-Dichloropropene	mg/kg	0.11 U	0.21 U	0.041 U	R	R	0.083 U	0.21 U	0.066 UJ	0.5 U	0.062 U	R	0.065 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	1.2[e]	5.2[ei]	0.022 J	0.091 J	R	2.2[e]	6.8[ei]	0.066 UJ	7.3[ei]	0.098	R	0.065
Trichlorofluoromethane (CFC-11)	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.12 U	R	0.13 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.53 U	1.1 U	0.2 U	R	R	0.41 U	1 U	0.33 UJ	2.5 U	0.31 U	R	0.33 U
Vinyl chloride	mg/kg	0.21 U	0.42 U	0.082 U	R	R	0.17 U	0.42 U	0.13 UJ	1 U	0.32[ei]	R	0.13 U
Xylenes (total)	mg/kg	1.1 U	2.1 U	0.41 U	0.19 J	R	0.83 U	2.1 U	0.64 J	32[ei]	1.2[i]	R	0.31 J
SVOCs													
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,4,5-Trichlorophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,4,6-Trichlorophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,4-Dichlorophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,4-Dimethylphenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,4-Dinitrophenol	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
2,4-Dinitrotoluene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2,6-Dinitrotoluene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2-Chloronaphthalene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2-Chlorophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2-Methylnaphthalene	mg/kg	1.5 U	0.38 U	0.36 U	1.8 J	0.1 J	-	-	9.2[i]	27[i]	-	-	1.2 J
2-Methylphenol	mg/kg	1.5 U	0.38 U	0.36 U	0.024 J	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
2-Nitroaniline	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
2-Nitrophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
3-Nitroaniline	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
4,6-Dinitro-2-methylphenol	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
4-Bromophenyl phenyl ether	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
4-Chloro-3-methylphenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
4-Chloroaniline	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
4-Chlorophenyl phenyl ether	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
4-Methylphenol	mg/kg	1.5 U	0.38 U	0.36 U	0.08 J	0.04 J	-	-	4.2 U	8.4 U	-	-	8.3 U
4-Nitroaniline	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
4-Nitrophenol	mg/kg	7.3 U	1.9 U	1.7 U	0.18 J	2.4 U	-	-	20 U	40 U	-	-	40 U
Acenaphthene	mg/kg	0.17 J	0.38 U	0.36 U	4.9 J	0.43 J	-	-	4.2 U	8.4 U	-	-	2.7 J
Acenaphthylene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Acetophenone	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Anthracene	mg/kg	0.26 J	0.028 J	0.029 J	7.5 J	0.98	-	-	0.68 J	2.1 J	-	-	4.5 J
Atrazine	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Benzaldehyde	mg/kg	1.5 U	0.054 J	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-14*	*MW19-14*	*MW19-15*	*MW19-15*	*MW19-15*	*SB19-03*	*SB19-03*	*SB19-05*	*SB21-01*	*SB22-01*	*SB22-01*	*SB22-02*
Sample Depth:		*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*6-8 ft BGS*	*1-3 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-111203-DD-209*	*S-17303-111203-DD-210*	*S-17303-111103-DD-205*	*S-17303-111103-DD-206*	*S-17303-111103-DD-207*	*S-17303-111403-DD-229*	*S-17303-111403-DD-230*	*S-17303-111303-DD-212*	*S-17303-111203-DD-208*	*S-17303-051804-DCR-319*	*S-17303-051804-DCR-320*	*S-17303-051804-DCR-322*
Sample Date:		*11/12/2003*	*11/12/2003*	*11/11/2003*	*11/11/2003*	*11/11/2003*	*11/14/2003*	*11/14/2003*	*11/13/2003*	*11/12/2003*	*05/18/2004*	*05/18/2004*	*05/18/2004*
Sample Type:													
Parameter:	***Units***												
Benzo(a)anthracene	mg/kg	1.4 J	0.24 J	0.099 J	11 J	1.5	-	-	0.47 J	3.3 J	-	-	9.1
Benzo(a)pyrene	mg/kg	1.7	0.31 J	0.12 J	10 J[d]	1.6	-	-	0.51 J	3.6 J	-	-	5.5 J
Benzo(b)fluoranthene	mg/kg	2	0.4	0.13 J	11 J	1.7	-	-	0.58 J	4.7 J	-	-	9.8
Benzo(g,h,i)perylene	mg/kg	1 J	0.21 J	0.073 J	5 J	0.9	-	-	0.3 J	1.8 J	-	-	5.3 J
Benzo(k)fluoranthene	mg/kg	1.4 J	0.16 J	0.074 J	5.4 J	0.78	-	-	0.34 J	1.9 J	-	-	4.6 J
Biphenyl (1,1-Biphenyl)	mg/kg	1.5 U	0.38 U	0.36 U	0.46	0.077 J	-	-	0.9 J	2 J	-	-	0.37 J
bis(2-Chloroethoxy)methane	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
bis(2-Chloroethyl)ether	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	1.5 U	0.11 J	0.041 J	0.057 J	0.49 U	-	-	4.2 U	8.4 U	-	-	0.55 J
Butyl benzylphthalate (BBP)	mg/kg	1.5 U	0.38 U	0.36 U	0.032 J	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Caprolactam	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Carbazole	mg/kg	0.41 J	0.38 U	0.36 U	4 J[i]	0.6	-	-	4.2 U	8.4 U	-	-	2.1 J[i]
Chrysene	mg/kg	2	0.32 J	0.13 J	10 J	1.7	-	-	0.57 J	4 J	-	-	10
Dibenz(a,h)anthracene	mg/kg	0.29 J	0.06 J	0.36 U	1.6 J	0.28 J	-	-	4.2 U	8.4 U	-	-	0.4 J
Dibenzofuran	mg/kg	0.18 J	0.38 U	0.36 U	2.6 J[i]	0.27 J	-	-	4.2 U	8.4 U	-	-	1.1 J
Diethyl phthalate	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Dimethyl phthalate	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Di-n-butylphthalate (DBP)	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Di-n-octyl phthalate (DnOP)	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Fluoranthene	mg/kg	5.1	0.35 J	0.27 J	31[i]	5.1	-	-	1.4 J	8.6[i]	-	-	25[i]
Fluorene	mg/kg	0.21 J	0.38 U	0.36 U	4.1 J	0.46 J	-	-	0.94 J	3 J	-	-	2.4 J
Hexachlorobenzene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Hexachlorobutadiene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Hexachlorocyclopentadiene	mg/kg	7.3 U	1.9 U	1.7 U	2 U	2.4 U	-	-	20 U	40 U	-	-	40 U
Hexachloroethane	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.95 J	0.19 J	0.073 J	5 J	0.89	-	-	0.29 J	1.7 J	-	-	4.4 J
Isophorone	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Naphthalene	mg/kg	0.12 J	0.38 U	0.36 U	5.2 J[i]	0.43 J	-	-	1.6 J[i]	4.3 J[i]	-	-	1.6 J[i]
Nitrobenzene	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
N-Nitrosodi-n-propylamine	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
N-Nitrosodiphenylamine	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Pentachlorophenol	mg/kg	1.5 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	4.2 U	8.4 U	-	-	8.3 U
Phenanthrene	mg/kg	3.4[i]	0.14 J	0.16 J	28[i]	3.9[i]	-	-	2.5 J[i]	9.6[i]	-	-	17[i]
Phenol	mg/kg	1.5 U	0.38 U	0.36 U	0.059 J	0.11 J	-	-	4.2 U	8.4 U	-	-	8.3 U
Pyrene	mg/kg	3.4	0.37 J	0.2 J	21	3	-	-	1.2 J	7.4 J	-	-	18
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics													
Aluminum	mg/kg	4660	6000	5740	5010	2730	-	-	6780	4460	-	-	6200
Antimony	mg/kg	18.3[e]	307[ei]	0.37 J	54.5 J[e]	16.5 J[e]	-	-	8.2[e]	573[ei]	-	-	30.5 J[e]
Arsenic	mg/kg	6.7[ei]	90.7[dei]	5.3	36.2[ei]	6.2[ei]	-	-	5.9[ei]	20.3[ei]	-	-	13.6 J[ei]
Barium	mg/kg	296	5070[ei]	46.4	538	344	-	-	343	4020[ei]	-	-	746
Beryllium	mg/kg	0.29	2.1	0.14 J	0.25 U	0.045 J	-	-	0.38	0.25	-	-	0.39
Cadmium	mg/kg	9.3[ei]	171[ei]	0.45	1170[ei]	9.7[ei]	-	-	5.7	244[ei]	-	-	83.1 J[ei]
Calcium	mg/kg	38200	19700	64000	38300	227000	-	-	27800	13600	-	-	39000
Chromium	mg/kg	30.6[ei]	222[ei]	10.8[i]	41.5[ei]	82.4[ei]	-	-	65[ei]	572[egi]	-	-	66.7 J[ei]
Cobalt	mg/kg	5.4	33.5[ei]	6.9[ei]	9.9[ei]	4.4	-	-	4.9	21.6[ei]	-	-	10.2[ei]
Copper	mg/kg	158	9310[ei]	16.7	97.4	27.8	-	-	29.7	188[i]	-	-	63.4 J
Iron	mg/kg	16200[e]	204000[e]	14400[e]	17700[e]	8000	-	-	12000	32200[e]	-	-	23600[e]
Lead	mg/kg	1400[de]	19400[dei]	18.0	3500[de]	915[de]	-	-	683	24600[dei]	-	-	2500[de]
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.4B

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Sample Location:		*MW19-14*	*MW19-14*	*MW19-15*	*MW19-15*	*MW19-15*	*SB19-03*	*SB19-03*	*SB19-05*	*SB21-01*	*SB22-01*	*SB22-01*	*SB22-02*
Sample Depth:		*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*0-2 ft BGS*	*7.5-9.5 ft BGS*	*6-8 ft BGS*	*1-3 ft BGS*	*7-9 ft BGS*	*9-9.5 ft BGS*	*8-10 ft BGS*
Sample ID:		*S-17303-111203-DD-209*	*S-17303-111203-DD-210*	*S-17303-111103-DD-205*	*S-17303-111103-DD-206*	*S-17303-111103-DD-207*	*S-17303-111403-DD-229*	*S-17303-111403-DD-230*	*S-17303-111303-DD-212*	*S-17303-111203-DD-208*	*S-17303-051804-DCR-319*	*S-17303-051804-DCR-320*	*S-17303-051804-DCR-322*
Sample Date:		*11/12/2003*	*11/12/2003*	*11/11/2003*	*11/11/2003*	*11/11/2003*	*11/14/2003*	*11/14/2003*	*11/13/2003*	*11/12/2003*	*05/18/2004*	*05/18/2004*	*05/18/2004*
Sample Type:													
Parameter:	*Units*												
Magnesium	mg/kg	15100	5220	15200	8830	5810	-	-	5470	5390	-	-	6360 J
Manganese	mg/kg	359	1950[egi]	300	283	249	-	-	218	408	-	-	342
Mercury	mg/kg	0.051 J	0.36[i]	0.024 J	0.096 J	0.065 J	-	-	0.16[i]	0.17[i]	-	-	0.067 J
Nickel	mg/kg	26.0	278[ei]	18.1	19.5	9.2	-	-	14.2	41.8	-	-	20.3
Potassium	mg/kg	461 J	534 J	1220	935	406 J	-	-	1010	381 J	-	-	2430
Selenium	mg/kg	0.78[i]	9.6[ei]	0.22 U	421[ei]	1.9[i]	-	-	1.9[i]	60.3[ei]	-	-	22.9 J[ei]
Silver	mg/kg	0.74	6.6[i]	0.54 U	1.0	0.35 J	-	-	1.2[i]	7.4[i]	-	-	0.83
Sodium	mg/kg	56.7 J	615	89.6 J	273	281	-	-	410	464	-	-	701
Thallium	mg/kg	0.076 J	1.2 U	0.34	0.12	0.078 J	-	-	0.23	2.5 U	-	-	0.31
Vanadium	mg/kg	12.2	32.4	14.1	13.7	8.8	-	-	17.7	24.5	-	-	17.1
Zinc	mg/kg	419[i]	4770[i]	45.1	652[i]	744[i]	-	-	196	1660[i]	-	-	9030[ei]
Cyanide (total)	mg/kg	0.23 U	0.21 J[i]	0.22 U	7.7[ei]	9.1[ei]	-	-	1.6[i]	2.3[i]	-	-	2.3[i]
PCBs													
Aroclor-10(PCB-1016)	mg/kg	0.37 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	0.42 U	0.42 U	-	-	2.1 U
Aroclor-12(PCB-1221)	mg/kg	0.37 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	0.42 U	0.42 U	-	-	2.1 U
Aroclor-12(PCB-1232)	mg/kg	0.37 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	0.42 U	0.42 U	-	-	2.1 U
Aroclor-12(PCB-1242)	mg/kg	0.37 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	0.42 U	0.42 U	-	-	2.1 U
Aroclor-12(PCB-1248)	mg/kg	0.37 U	0.38 U	0.36 U	1.4	0.18 J	-	-	2.1	0.42 U	-	-	1.6 J
Aroclor-12(PCB-1254)	mg/kg	0.37 U	0.38 U	0.36 U	0.41 U	0.49 U	-	-	0.42 U	5	-	-	2.1 U
Aroclor-12(PCB-1260)	mg/kg	0.38	0.14 J	0.25 J	0.84	0.097 J	-	-	0.42 U	0.42 U	-	-	0.6 J
Total PCBs	mg/kg	0.38	0.14 J	0.25 J	2.24	0.277 J	-	-	2.1	5	-	-	2.2 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

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PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*SB22-04*	*SB22-05*	*SB22-05*	*TP19-03*	*TP19-04*	*TP-A6S*	*TP-A6S*	*TP-A6S2*	*TP-I*	*TP-L*
Sample Depth:		*7-9 ft BGS*	*9-10 ft BGS*	*11-13 ft BGS*	*1.5-11 ft BGS*	*-*	*2.5-2.5 ft BGS*	*6-6 ft BGS*	*9-9 ft BGS*	*4-4 ft BGS*	*3-3 ft BGS*
Sample ID:		*'303-051804-DCR-*	*S-17303-051804-DCR-323*	*S-17303-051804-DCR-324*	*SO-17303-MA-060403-197*	*SO-17303-MA-060303-193*	*SL-17303-060905-BW-0761*	*ST-17303-060905-BW-0762*	*SO-17303-061305-BW-0772*	*SO-17303-060805-BW-0760*	*SO-17303-060805-BW-0759*
Sample Date:		*05/18/2004*	*05/18/2004*	*05/18/2004*	*06/04/2003*	*06/03/2003*	*06/09/2005*	*06/09/2005*	*06/13/2005*	*06/08/2005*	*06/08/2005*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,1,2,2-Tetrachloroethane	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,1,2-Trichloroethane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,1-Dichloroethane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,1-Dichloroethene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
1,2-Dichlorobenzene	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	0.73 J[i]	1.9 U
1,2-Dichloroethane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	0.054 U	0.8	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	2.5 U	1.9 U
1,3-Dichloropropene	mg/kg	-	-	-	0.054 U	0.06 U	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	2.5 U	1.9 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.86 U	0.9 U	43 U	0.81 U	0.9 U	21 U	-	0.6 U	18 U	14 U
2-Hexanone	mg/kg	2.9 U	3 U	140 U	2.7 U	3 U	71 U	-	2 U	62 U	47 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.9 U	3 U	140 U	2.7 U	3 U	71 U	-	2 U	62 U	47 U
Acetone	mg/kg	0.86 U	0.9 U	43 U	0.81 U	0.9 U	21 U	-	0.6 U	18 U	14 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	6.2[ei]	0.94 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 UJ	-	0.08 U	2.5 UJ	1.9 UJ
Bromoform	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	2.5 U	1.9 U
Bromomethane (Methyl bromide)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	5.7 U	-	0.16 U	4.9 U	3.8 U
Carbon disulfide	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
Carbon tetrachloride	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
Chlorobenzene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
Chloroform (Trichloromethane)	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
Chloromethane (Methyl chloride)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
cis-1,2-Dichloroethene	mg/kg	0.088	0.06 U	2.8 U	0.054 U	0.78	1.4 U	-	0.04 U	1.2 U	0.58 J
cis-1,3-Dichloropropene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
Cyclohexane	mg/kg	1.4 U	1.4 U	1.7 J	1.3 U	1.4 U	34 U	-	0.96 U	3.1 J	23 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	2.5 U	1.9 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.019 J	0.06 U	16[ei]	0.18	2.7[ei]	7.9[ei]	-	0.04 U	34[ei]	0.94 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	0.29 U	0.3 U	20[i]	0.27 U	1.3	3.2 J	-	0.2 U	3.3 J[i]	4.7 U
Methyl acetate	mg/kg	0.11 J	0.58 J	68 U	1.3 U	1.4 U	34 U	-	0.96 U	30 U	23 U

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		***SB22-04***	***SB22-05***	***SB22-05***	***TP19-03***	***TP19-04***	***TP-A6S***	***TP-A6S***	***TP-A6S2***	***TP-I***	***TP-L***
Sample Depth:		***7-9 ft BGS***	***9-10 ft BGS***	***11-13 ft BGS***	***1.5-11 ft BGS***	***-***	***2.5-2.5 ft BGS***	***6-6 ft BGS***	***9-9 ft BGS***	***4-4 ft BGS***	***3-3 ft BGS***
Sample ID:		***'303-051804-DCR-***	***S-17303-051804-DCR-323***	***S-17303-051804-DCR-324***	***SO-17303-MA-060403-197***	***SO-17303-MA-060303-193***	***SL-17303-060905-BW-0761***	***ST-17303-060905-BW-0762***	***SO-17303-061305-BW-0772***	***SO-17303-060805-BW-0760***	***SO-17303-060805-BW-0759***
Sample Date:		***05/18/2004***	***05/18/2004***	***05/18/2004***	***06/04/2003***	***06/03/2003***	***06/09/2005***	***06/09/2005***	***06/13/2005***	***06/08/2005***	***06/08/2005***
Sample Type:											
Parameter:	***Units***										
Methyl cyclohexane	mg/kg	1.4 U	1.4 U	17 J	0.67	1.9	34 U	-	0.96 U	9.4 J	23 U
Methyl tert butyl ether (MTBE)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
Methylene chloride	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	R	-	0.2 U	R	R
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	2.6[i]	-	0.04 U	1.2 U	0.94 U
Tetrachloroethene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.013 J	1.2 U	0.94 U
Toluene	mg/kg	0.015 J	0.12 U	0.89 J	0.11 U	7.8[i]	2.3 J	-	0.08 U	1.5 J	1.9 U
trans-1,2-Dichloroethene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
trans-1,3-Dichloropropene	mg/kg	0.058 U	0.06 U	2.8 U	0.054 U	0.06 U	1.4 U	-	0.04 U	1.2 U	0.94 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.064	0.06 U	2.8 U	0.054 U	1.3[e]	3.7[e]	-	0.25 U	1.2 U	5[ei]
Trichlorofluoromethane (CFC-11)	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	2.9 U	-	0.08 U	2.5 U	1.9 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.29 U	0.3 U	14 U	0.27 U	0.3 U	7.1 U	-	0.2 U	6.2 U	4.7 U
Vinyl chloride	mg/kg	0.12 U	0.12 U	5.7 U	0.11 U	0.12 U	1.1 U	-	0.016 J	0.98 U	0.75 U
Xylenes (total)	mg/kg	0.053 J	0.6 U	180[defhij]	0.65	20.5[ei]	13[ei]	-	0.02 J	120[ei]	2.8 U
SVOCs											
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,4,5-Trichlorophenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,4,6-Trichlorophenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,4-Dichlorophenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,4-Dimethylphenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,4-Dinitrophenol	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	900 U	-	0.15 U	42 U	2.6 U
2,4-Dinitrotoluene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2,6-Dinitrotoluene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2-Chloronaphthalene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2-Chlorophenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2-Methylnaphthalene	mg/kg	40 U	0.37 U	0.27 J	12[i]	2.7	1600 U	-	0.26 U	74 U	4.6 U
2-Methylphenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
2-Nitroaniline	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	1200 U	-	0.2 U	56 U	3.5 U
2-Nitrophenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
3&4-Methylphenol	mg/kg	-	-	-	0.72 U	0.8 U	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	200 U	1.8 U	3.2 U	4.3 U	4.8 U	9600 U	-	1.6 U	450 U	28 U
3-Nitroaniline	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	1200 U	-	0.2 U	56 U	3.5 U
4,6-Dinitro-2-methylphenol	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	900 U	-	0.15 U	42 U	2.6 U
4-Bromophenyl phenyl ether	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
4-Chloro-3-methylphenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
4-Chloroaniline	mg/kg	40 U	0.37 U	0.65 U	3.7 U	4.1 U	900 U	-	0.15 U	42 U	2.6 U
4-Chlorophenyl phenyl ether	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
4-Methylphenol	mg/kg	40 U	0.37 U	0.65 U	-	-	1600 U	-	0.26 U	74 U	4.6 U
4-Nitroaniline	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	1200 U	-	0.2 U	56 U	3.5 U
4-Nitrophenol	mg/kg	200 U	1.8 U	3.2 U	3.7 U	4.1 U	2000 U	-	0.33 U	92 U	5.8 U
Acenaphthene	mg/kg	14 J[i]	0.018 J	0.65 U	0.72 U	1.3	1600 U	-	0.26 U	74 U	4.6 U
Acenaphthylene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Acetophenone	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Anthracene	mg/kg	25 J	0.051 J	0.65 U	0.72 U	1.9	1600 U	-	0.26 U	74 U	4.6 U
Atrazine	mg/kg	40 U	0.37 U	0.65 U	0.33 U	0.36 U	240 U	-	0.04 U	11 U	0.7 U
Benzaldehyde	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		***SB22-04***	***SB22-05***	***SB22-05***	***TP19-03***	***TP19-04***	***TP-A6S***	***TP-A6S***	***TP-A6S2***	***TP-I***	***TP-L***
Sample Depth:		***7-9 ft BGS***	***9-10 ft BGS***	***11-13 ft BGS***	***1.5-11 ft BGS***	***-***	***2.5-2.5 ft BGS***	***6-6 ft BGS***	***9-9 ft BGS***	***4-4 ft BGS***	***3-3 ft BGS***
Sample ID:		***'303-051804-DCR-***	***S-17303-051804-DCR-323***	***S-17303-051804-DCR-324***	***SO-17303-MA-060403-197***	***SO-17303-MA-060303-193***	***SL-17303-060905-BW-0761***	***ST-17303-060905-BW-0762***	***SO-17303-061305-BW-0772***	***SO-17303-060805-BW-0760***	***SO-17303-060805-BW-0759***
Sample Date:		***05/18/2004***	***05/18/2004***	***05/18/2004***	***06/04/2003***	***06/03/2003***	***06/09/2005***	***06/09/2005***	***06/13/2005***	***06/08/2005***	***06/08/2005***
Sample Type:											
Parameter:	***Units***										
Benzo(a)anthracene	mg/kg	41	0.14 J	0.65 U	0.72 U	2.9	1600 U	-	0.26 U	74 U	4.6 U
Benzo(a)pyrene	mg/kg	36 J[d]	0.16 J	0.65 U	0.72 U	1.8	1600 U	-	0.26 U	74 U	4.6 U
Benzo(b)fluoranthene	mg/kg	41	0.2 J	0.65 U	0.72 U	2.5	1600 U	-	0.26 U	74 U	0.51 J
Benzo(g,h,i)perylene	mg/kg	20 J	0.12 J	0.65 U	0.72 U	1.1	1600 U	-	0.26 U	74 U	4.6 U
Benzo(k)fluoranthene	mg/kg	22 J	0.085 J	0.65 U	0.72 U	1.1	1600 U	-	0.26 U	74 U	4.6 U
Biphenyl (1,1-Biphenyl)	mg/kg	40 U	0.37 U	0.65 U	0.98	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
bis(2-Chloroethoxy)methane	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
bis(2-Chloroethyl)ether	mg/kg	40 U	0.37 U	0.65 U	0.22 U	0.24 U	480 U	-	0.08 U	22 U	1.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Butyl benzylphthalate (BBP)	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Caprolactam	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Carbazole	mg/kg	12 J[i]	0.016 J	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Chrysene	mg/kg	41	0.18 J	0.65 U	0.72 U	2.3	1600 U	-	0.26 U	74 U	0.94 J
Dibenz(a,h)anthracene	mg/kg	4.9 J	0.021 J	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Dibenzofuran	mg/kg	7 J[i]	0.37 U	0.65 U	1.1	1.1	1600 U	-	0.26 U	74 U	4.6 U
Diethyl phthalate	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Dimethyl phthalate	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Di-n-butylphthalate (DBP)	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1700[dehij]	-	0.26 U	97[i]	4.6 U
Di-n-octyl phthalate (DnOP)	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Fluoranthene	mg/kg	110[i]	0.31 J	0.65 U	0.72 U	6[i]	1600 U	-	0.26 U	74 U	0.73 J
Fluorene	mg/kg	12 J[i]	0.37 U	0.65 U	2.3	2.3	1600 U	-	0.26 U	74 U	4.6 U
Hexachlorobenzene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Hexachlorobutadiene	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	240 U	-	0.04 U	11 U	0.7 U
Hexachlorocyclopentadiene	mg/kg	200 U	1.8 U	3.2 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Hexachloroethane	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Indeno(1,2,3-cd)pyrene	mg/kg	19 J	0.1 J	0.65 U	0.72 U	0.87	1600 U	-	0.26 U	74 U	4.6 U
Isophorone	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Naphthalene	mg/kg	8.4 J[i]	0.37 U	0.19 J	3.7[i]	1.1[i]	1600 U	-	0.26 U	74 U	4.6 U
Nitrobenzene	mg/kg	40 U	0.37 U	0.65 U	0.43 U	0.48 U	1600 U	-	0.26 U	74 U	4.6 U
N-Nitrosodi-n-propylamine	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
N-Nitrosodiphenylamine	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Pentachlorophenol	mg/kg	40 U	0.37 U	0.65 U	1.7 U	1.9 U	900 U	-	0.15 U	42 U	2.6 U
Phenanthrene	mg/kg	95[i]	0.17 J	0.041 J	4.7[i]	11[i]	1600 U	-	0.26 U	74 U	4.6 U
Phenol	mg/kg	40 U	0.37 U	0.65 U	0.72 U	0.8 U	1600 U	-	0.26 U	74 U	4.6 U
Pyrene	mg/kg	82	0.27 J	0.65 U	0.72 U	3.9	1600 U	-	0.26 U	74 U	0.75 J
Pyridine	mg/kg	-	-	-	0.72 U	-	-	-	-	-	-
Inorganics											
Aluminum	mg/kg	6720	4660	4880	2180	4040	-	-	-	-	-
Antimony	mg/kg	10.9 J[e]	2.5 J	0.99 UJ	4.96[e]	402[ei]	2.2	-	0.16 U	24.8[e]	42.7[e]
Arsenic	mg/kg	8.1 J[ei]	4.2 J	8.7 J[ei]	1.8 J	9.46 J[ei]	5.9[ei]	-	0.57 J	1.1	10.7[ei]
Barium	mg/kg	1610[ei]	119	63.7	7.79 J	823 J	214	-	25.7	129	985
Beryllium	mg/kg	0.40	0.28	0.40 U	0.22 UJ	0.24 U	0.20	-	0.35	0.14	0.26
Cadmium	mg/kg	46.3 J[ei]	9.7 J[ei]	0.39 J	0.146 J	15.2 J[ei]	29.6[ei]	-	0.080 U	45.8[ei]	153[ei]
Calcium	mg/kg	43900	30700	4900	1100	14500	-	-	-	-	-
Chromium	mg/kg	72.8 J[ei]	31.6 J[ei]	12.3 J[i]	16.5[i]	226[ei]	36.8[ei]	-	13.8[i]	235[ei]	16600[degi]
Cobalt	mg/kg	6.6	4.4	3.7	1.93	10.5[ei]	2.4	-	3.7	6.4	104[ei]
Copper	mg/kg	64.4 J	17.6 J	9.2 J	4.95 J	231 J[i]	201[i]	-	19.7	178[i]	108
Iron	mg/kg	12600[e]	8250	9600	4730	31000[e]	-	-	-	-	-
Lead	mg/kg	1240[de]	426	11.0	5.16	12000[dei]	444	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	13.0	1670[de]	65800[degi]
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	48.0	1130[de]	71600[degi]
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	28.7	1560[de]	69200[degi]

APPENDIX F.4B

PAOC 29 - SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		***SB22-04***	***SB22-05***	***SB22-05***	***TP19-03***	***TP19-04***	***TP-A6S***	***TP-A6S***	***TP-A6S2***	***TP-I***	***TP-L***
Sample Depth:		***7-9 ft BGS***	***9-10 ft BGS***	***11-13 ft BGS***	***1.5-11 ft BGS***	***-***	***2.5-2.5 ft BGS***	***6-6 ft BGS***	***9-9 ft BGS***	***4-4 ft BGS***	***3-3 ft BGS***
Sample ID:		***'303-051804-DCR-***	***S-17303-051804-DCR-323***	***S-17303-051804-DCR-324***	***SO-17303-MA-060403-197***	***SO-17303-MA-060303-193***	***SL-17303-060905-BW-0761***	***ST-17303-060905-BW-0762***	***SO-17303-061305-BW-0772***	***SO-17303-060805-BW-0760***	***SO-17303-060805-BW-0759***
Sample Date:		***05/18/2004***	***05/18/2004***	***05/18/2004***	***06/04/2003***	***06/03/2003***	***06/09/2005***	***06/09/2005***	***06/13/2005***	***06/08/2005***	***06/08/2005***
Sample Type:											
Parameter:	***Units***										
Magnesium	mg/kg	8370 J	6900 J	1600 J	1060	8140	-	-	-	-	-
Manganese	mg/kg	283	2570[egi]	82.6	50.7	823[ei]	120	-	51.3 J	243	270
Mercury	mg/kg	0.079 J	0.040 J	0.041 J	0.11 U	0.12 U	0.13	-	0.0098 J	0.013	0.17[i]
Nickel	mg/kg	16.5	10.5	8.9	5.16	59.9	13.1	-	10.5	50.3	14.5
Potassium	mg/kg	1030	536 J	989 U	224	287	-	-	-	-	-
Selenium	mg/kg	13.2 J[ei]	1.9 J[i]	2.2 J[i]	0.22 U	1.33 J[i]	1.3[i]	-	0.18	1.5[i]	42.2[ei]
Silver	mg/kg	0.67	0.15 J	0.99 U	0.54 UJ	1.3 J[i]	0.74	-	0.051 J	0.66	1.5[i]
Sodium	mg/kg	174	201	299	196 J	415 J	-	-	-	-	-
Thallium	mg/kg	0.20	0.13	0.081 J	3.88[e]	19.1[ei]	0.64	-	0.21	0.016	0.096
Vanadium	mg/kg	16.4	11.3	17.4	7.7	29.6	3.3	-	12.6	2.7	24.0
Zinc	mg/kg	990[i]	2060[i]	41.8	16.5	2350[i]	963[i]	-	46.5	1610[i]	8570[ei]
Cyanide (total)	mg/kg	2[i]	0.43[i]	0.40 U	-	-	-	-	-	-	-
PCBs											
Aroclor-10(PCB-1016)	mg/kg	0.81 U	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1221)	mg/kg	0.81 U	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1232)	mg/kg	0.81 U	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1242)	mg/kg	0.81 U	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1248)	mg/kg	0.72 J	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1254)	mg/kg	0.81 U	0.37 U	0.65 U	0.36 U	0.4 U	0.33 U	0.26 U	0.26 U	0.33 U	1.6 U
Aroclor-12(PCB-1260)	mg/kg	0.58 J	0.11 J	0.65 U	0.36 U	0.4 U	5.3	2.7	0.26 U	2.7	1.6 U
Total PCBs	mg/kg	1.3 J	0.11 J	0.65 U	0.36 U	0.4 U	5.3	2.7	0.26 U	2.7	1.6 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.5A

SITE WIDE SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile oil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 19* *SB-18-15* *4-6 ft BGS* *SB-18-15S4E6* *12/01/1996*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
SVOCs													
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.1
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	1
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	5.3
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	0.42
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41	-	29000000	41	ID	-	9.1
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	20
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	9.5[d]
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	20
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	7.7
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	6.7 U
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	21
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	6.7 U
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730	-	4100000	730	5.5	-	44[i]
Fluorene	mg/kg	-	150000	150000	150000	87000	890	-	4100000	890	5.3	-	6.7 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	10
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	2.3[i]
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	31[i]
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	-
Pyrene	mg/kg	-	780000	780000	780000	84000	480	-	2900000	480	ID	-	37
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-
TCLP SVOCs		#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A		
1,4-Dichlorobenzene	mg/L	-	340	260	260	1900	1.7	100	570000	140	0.36		-
2,4,5-Trichlorophenol	mg/L	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100			-
2,4,6-Trichlorophenol	mg/L	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33		-
2,4-Dinitrotoluene	mg/L	-	NLV	NLV	NLV	220	0.64	NLV	20000	170			-
2-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-
3&4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-
4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-
Hexachlorobenzene	mg/L	-	56	56	56	37	1.8	220	8500	8.2	0.35		-
Hexachlorobutadiene	mg/L	-	460	460	460	350	72	350	180000	350	0.091		-
Hexachloroethane	mg/L	-	1400	1400	660	730	1.2	79	100000	110	1.8		-
Nitrobenzene	mg/L	-	64	64	64	340	0.33	170	21000	220	3.6		-
Pentachlorophenol	mg/L	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5		-
Pyridine	mg/L	-	97	40	9.8	37	0.42	2	100000	37			-
Metals													
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-

Notes:
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APPENDIX F.5A

SITE WIDE SOIL ANALYTICAL RESULTS PRE 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***	***SB-18-15***
Sample Depth:		***6-2 ft BGS***	***6-8 ft BGS***	***0-0.5 ft BGS***	***0.5-2 ft BGS***	***2-4 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***	***4-6 ft BGS***	***6-8 ft BGS***	***8-10 ft BGS***
Sample ID:		***SB-18-15S6E2***	***SB-18-15S6E8***	***SB-18-15S0E1***	***SB-18-15S1E2***	***SB-18-15S2E4***	***SB-18-15S4E6***	***SB-18-15S6E8***	***SB-18-15S8E10***	***SB-18-15S4E6***	***SB-18-15S6E8***	***SB-18-15S8E10***
Sample Date:		***12/01/1996***	***12/01/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***	***12/10/1996***
Sample Type:												
Parameter:	***Units***											
SVOCs												
1-Methylnaphthalene	mg/kg	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.48	0.33 U	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.81	0.33 U	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	2.5	0.41	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	3.7	0.42	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	5.3	0.5	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.44	0.33 U	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	6.7 U	0.33 U	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.33 U	0.33 U	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	**3.3**[4]	0.49	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	5.2	0.33 U	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs												
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-
Metals												
Lead	mg/kg	-	-	**6100**[de]	**2100**[de]	**3500**[de]	**5200**[de]	**2300**[de]	**1200**[de]	**5200**[de]	**2300**[de]	**1200**[de]

Notes:
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The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 19* *MW19-01* *0-2 ft BGS* *S-17303-112003-DD-226* *11/20/2003*	*PAOC 19* *MW19-01* *12.5-14.5 ft BGS* *S-17303-112003-DD-227* *11/20/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
VOCs														
1,1,1,2-Tetrachloroethane	mg/kg	-	330	210	120	440	6.4	33	530000	440	ID	440	-	-
1,1,1-Trichloroethane	mg/kg	-	31000	15000	4500	460	4	460	29000000	460	1.8	460	0.05 U	0.051 U
1,1,2,2-Tetrachloroethane	mg/kg	-	34	34	34	240	0.7	23	68000	94	1.6	870	0.099 U	0.1 U
1,1,2-Trichloroethane	mg/kg	-	120	57	57	840	0.1	24	250000	420	6.6	920	0.05 U	0.051 U
1,1-Dichloroethane	mg/kg	-	14000	6000	2500	890	50	430	15000000	890	15	890	0.05 U	0.051 U
1,1-Dichloroethene	mg/kg	-	37	15	3.7	570	0.14	0.33	78000	220	2.6	570	0.05 U	0.051 U
1,2,3-Trichloropropane	mg/kg	-	12	11	11	830	2.4	7.5	8800	830		830	-	-
1,2,4-Trichlorobenzene	mg/kg	-	34000	34000	34000	1100	4.2	1100	11000000	1100	5.9	1100	0.25 U	0.26 U
1,2,4-Trimethylbenzene	mg/kg	-	600000	600000	25000	110	2.1	110	36000000	110	0.57	110	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	15	15	15	1.2	0.01	1.2	5900	1.2	ID	1.2	0.25 U	0.26 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	9.8	5.8	5.8	0.43	0.02	3.6	18000	0.5	0.11	890	0.25 U	0.26 U
1,2-Dichlorobenzene	mg/kg	-	55000	46000	46000	210	14	210	44000000	210	0.28	210	0.099 U	0.1 U
1,2-Dichloroethane	mg/kg	-	74	33	21	420	0.1	11	150000	380	7.2	1200	0.05 U	0.051 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	120	51	30	550	0.1	7.4	120000	320	4.6	550	0.05 U	0.051 U
1,3,5-Trimethylbenzene	mg/kg	-	460000	460000	19000	94	1.8	94	36000000	94	1.1	94	-	-
1,3-Dichlorobenzene	mg/kg	-	110	94	94	170	0.48	48	8800	51	0.68	170	0.099 U	0.1 U
1,3-Dichloropropene	mg/kg	-	470	200	60	240	0.7	5.4	590000	110	0.18	620	-	-
1,4-Dichlorobenzene	mg/kg	-	340	260	260	1900	1.7	100	570000	140	0.36	-	0.099 U	0.1 U
1-Chloro-2,3-epoxypropane	mg/kg	-	37	37	37	41	0.1	120	29000	220		7300	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	36000	35000	35000	27000	760	27000	29000000	27000	44	27000	0.75 U	0.77 U
2-Hexanone	mg/kg	-	1500	1300	1300	2500	58	1800	1200000	2500	ID	2500	2.5 U	2.6 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	70000	53000	53000	2700	100	2700	60000000	2700	ID	2700	2.5 U	2.6 U
Acetone	mg/kg	-	200000	160000	160000	73000	42	110000	170000000	110000	34	110000	0.17 J	0.18 J
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	230	99	45	400	0.1	8.4	470000	220	4	400	0.05 U	0.051 U
Bromobenzene	mg/kg	-	540	540	540	760	1.5	580	240000	360		760	-	-
Bromodichloromethane	mg/kg	-	57	31	31	490	1.6	6.4	110000	280	ID	1500	0.099 U	0.1 U
Bromoform	mg/kg	-	3100	3100	3100	870	1.6	770	3600000	870	ID	870	0.099 U	0.1 U
Bromomethane (Methyl bromide)	mg/kg	-	140	57	13	1000	0.58	1.6	150000	1400	0.7	2200	0.25 U	0.26 U
Carbon disulfide	mg/kg	-	19000	8000	1600	280	46	140	21000000	280	ID	280	0.25 U	0.26 U
Carbon tetrachloride	mg/kg	-	79	34	12	390	0.1	0.99	170000	92	0.9	390	0.05 U	0.051 U
Chlorobenzene	mg/kg	-	2100	1100	920	260	2	220	2100000	260	0.5	260	0.05 U	0.051 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	280000	120000	36000	950	34	950	290000000	950	22	950	0.25 U	0.26 U
Chloroform (Trichloromethane)	mg/kg	-	790	340	150	1500	1.6	38	1600000	1500	7	1500	0.05 U	0.051 U
Chloromethane (Methyl chloride)	mg/kg	-	2500	1000	120	1100	22	10	2600000	1100	ID	1100	0.25 U	0.26 U
cis-1,2-Dichloroethene	mg/kg	-	1000	430	210	640	1.4	41	1000000	640	12	640	0.05 U	0.051 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.05 U	0.051 U
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.2 U	1.2 U
Cyclohexanone	mg/kg	-	27000	11000	1300	220000	15000	32	29000000	220000		220000	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	98	80	80	500	1.6	21	160000	360	ID	610	0.05 U	0.051 U
Dibromomethane	mg/kg	-	ID	ID	ID	2000	4.6	ID	ID	2000		2000	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	1400000	550000	63000	1000	270	1700	1500000000	1000	ID	1000	0.099 U	0.1 U
Ethyl ether	mg/kg	-	350000	160000	100000	7400	0.2	7400	350000000	7400	ID	7400	-	-
Ethylbenzene	mg/kg	-	6500	3100	2400	140	1.5	140	13000000	140	0.36	140	0.05 U	0.051 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 19* *MW19-01* *0-2 ft BGS* *S-17303-112003-DD-226* *11/20/2003*	*PAOC 19* *MW19-01* *12.5-14.5 ft BGS* *S-17303-112003-DD-227* *11/20/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Isopropyl benzene	mg/kg	-	3000	2000	2000	390	260	390	2600000	390	3.2	390	0.25 U	0.26 U
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1.2 U	1.2 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.048 J	1.2 U
Methyl tert butyl ether (MTBE)	mg/kg	-	89000	41000	30000	5900	0.8	5900	88000000	5900	140	5900	0.25 U	0.26 U
Methylene chloride	mg/kg	-	4000	1700	700	2300	0.1	240	8300000	2300	30	2300	0.25 U	0.26 U
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
N-Propylbenzene	mg/kg	-	ID	ID	ID	8000	4.6	ID	590000	300	ID	10000	-	-
o-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
p-Xylene	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	-	150	-	-
Styrene	mg/kg	-	4200	3300	3300	520	2.7	520	6900000	270	2.1	520	0.05 U	0.051 U
Tetrachloroethene	mg/kg	-	3300	1400	600	88	0.1	60	6800000	88	1.2	88	0.05 U	0.051 U
Toluene	mg/kg	-	36000	36000	3300	250	16	250	12000000	250	5.4	250	0.018 J	0.1 U
trans-1,2-Dichloroethene	mg/kg	-	2000	840	330	1400	2	43	2100000	1400	30	1400	0.05 U	0.051 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.05 U	0.051 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	1100	440	260	500	0.1	37	2300000	440	4	500	0.05 U	0.051 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	140000000	140000000	110000	560	150	560	1700000000	560		560	0.099 U	0.1 U
Trifluorotrichloroethane (Freon 113)	mg/kg	-	2100000	890000	210000	550	550	550	2300000000	550	1.7	550	0.25 U	0.26 U
Vinyl chloride	mg/kg	-	420	170	29	34	0.04	2.8	890000	20	0.26	490	0.099 U	0.1 U
Xylenes (total)	mg/kg	-	130000	65000	54000	150	5.6	150	130000000	150	0.82	150	0.06 J	0.51 U
TCLP VOCs														
1,1-Dichloroethene	mg/L													
1,2-Dichloroethane	mg/L													
1,4-Dichlorobenzene	mg/L													
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L													
Benzene	mg/L													
Carbon tetrachloride	mg/L													
Chlorobenzene	mg/L													
Chloroform (Trichloromethane)	mg/L													
Tetrachloroethene	mg/L													
Trichloroethene	mg/L													
Vinyl chloride	mg/L													
SVOCs														
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100		-	-	-
2,4,6-Trichlorophenol	mg/kg	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33	-	-	-
2,4-Dichlorophenol	mg/kg	-	NLV	NLV	NLV	1800	4.2	NLV	2300000	960	0.33	1800	-	-
2,4-Dimethylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2100000	10000	7.6	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	NLV	NLV	NLV	220	0.64	NLV	20000	170		-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	ID	ID	ID	180000	1800	ID	ID	2300		-	-	-
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	2.6	800	530000	1900	0.36	19000	-	-
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	170	4900	290000	5500	4.2	-	-	-
2-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	NLV	NLV	NLV	2000	1.2	NLV	ID	1600	ID	-	-	-

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 19* *MW19-01* *0-2 ft BGS* *S-17303-112003-DD-226* *11/20/2003*	*PAOC 19* *MW19-01* *12.5-14.5 ft BGS* *S-17303-112003-DD-227* *11/20/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
3&4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	NLV	NLV	NLV	30	2	NLV	8200	4.6	2	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	NLV	NLV	NLV	260	0.83	NLV	ID	190		-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	NLV	NLV	NLV	15000	16	NLV	ID	3000	0.28	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	97000	97000	97000	130000	880	350000	6200000	970	8.7	-	-	-
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	17	3000	1000000	440	ID	-	-	-
Acetophenone	mg/kg	-	52000	52000	52000	1100	88	1100	14000000	1100	ID	1100	-	-
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	41	-	29000000	41	ID	-	-	-
Atrazine	mg/kg	-	NLV	NLV	NLV	330	0.06	NLV	ID	110	0.15	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Benzo(a)pyrene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	1900	NLL	NLL	-	-	-
Benzo(b)fluoranthene	mg/kg	-	ID	ID	ID	80	NLL	ID	ID	NLL	NLL	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	NLV	NLV	NLV	7000	NLL	NLV	350000	NLL	NLL	-	-	-
Benzo(k)fluoranthene	mg/kg	-	NLV	NLV	NLV	800	NLL	NLV	ID	NLL	NLL	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	0.17	44	12000	110	0.1	2200	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	NLV	NLV	NLV	10000	NLL	NLV	890000	NLL	NLL	10000	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	NLV	NLV	NLV	310	310	NLV	21000000	310	120	310	-	-
Caprolactam	mg/kg	-	NLV	NLV	NLV	310000	340	NLV	290000	-		-	-	-
Carbazole	mg/kg	-	NLV	NLV	NLV	2400	39	NLV	78000	820	1.1	-	-	-
Chrysene	mg/kg	-	ID	ID	ID	8000	NLL	ID	ID	NLL	NLL	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	NLV	NLV	NLV	8	NLL	NLV	ID	NLL	NLL	-	-	-
Dibenzofuran	mg/kg	-	160	160	160	ID	ID	3600	2900	ID	1.7	-	-	-
Diethyl phthalate	mg/kg	-	NLV	NLV	NLV	740	320	NLV	1500000	740	2.2	740	-	-
Dimethyl phthalate	mg/kg	-	NLV	NLV	NLV	790	790	NLV	1500000	790		790	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	NLV	NLV	NLV	760	760	NLV	1500000	760	11	760	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	NLV	NLV	NLV	20000	140000	NLV	14000000	140000	ID	140000	-	-
Fluoranthene	mg/kg	-	880000	880000	890000	130000	730	-	4100000	730	5.5	-	-	-
Fluorene	mg/kg	-	150000	150000	150000	87000	890	-	4100000	890	5.3	-	-	-
Hexachlorobenzene	mg/kg	-	56	56	56	37	1.8	220	8500	8.2	0.35	-	-	-
Hexachlorobutadiene	mg/kg	-	460	460	460	350	72	350	180000	350	0.091	350	-	-
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	720	320	56	5900	720	ID	720	-	-
Hexachloroethane	mg/kg	-	1400	1400	660	730	1.2	79	100000	110	1.8	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	NLV	NLV	NLV	80	NLL	NLV	ID	NLL	NLL	-	-	-
Isophorone	mg/kg	-	NLV	NLV	NLV	2400	62	NLV	8200000	2400	26	2400	-	-
Naphthalene	mg/kg	-	350	350	350	52000	100	470	88000	2100	0.73	-	-	-
Nitrobenzene	mg/kg	-	64	64	64	340	0.33	170	21000	220	3.6	490	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	NLV	NLV	NLV	5.4	0.33	NLV	2000	7.2		1500	-	-
N-Nitrosodiphenylamine	mg/kg	-	NLV	NLV	NLV	7800	22	NLV	2800000	700		-	-	-
Pentachlorophenol	mg/kg	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5	-	-	-
Phenanthrene	mg/kg	-	190	190	190	5200	160	5100	2900	1100	2.1	-	-	-
Phenol	mg/kg	-	NLV	NLV	NLV	12000	260	NLV	18000000	12000	9	12000	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)*	*Nonresidential Direct Contact Criteria*	*Nonresidential Drinking Water Protection Criteria*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs*	*Groundwater Contact Protection Criteria*	*Groundwater Surface Water Interface Protection Criteria*	*Soil Saturation Concentration Screening Levels*	*PAOC 19* *MW19-01* *0-2 ft BGS* *S-17303-112003-DD-226* *11/20/2003*	*PAOC 19* *MW19-01* *12.5-14.5 ft BGS* *S-17303-112003-DD-227* *11/20/2003*
		x	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Pyrene	mg/kg	-	780000	780000	780000	84000	480	-	2900000	480	ID	-	-	-
Pyridine	mg/kg	-	97	40	9.8	37	0.42	2	100000	37		37	-	-
TCLP SVOCs		#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A			
1,4-Dichlorobenzene	mg/L	-	340	260	260	1900	1.7	100	570000	140	0.36		-	-
2,4,5-Trichlorophenol	mg/L	-	NLV	NLV	NLV	73000	110	NLV	10000000	9100			-	-
2,4,6-Trichlorophenol	mg/L	-	NLV	NLV	NLV	3300	9.4	NLV	1300000	200	0.33		-	-
2,4-Dinitrotoluene	mg/L	-	NLV	NLV	NLV	220	0.64	NLV	20000	170			-	-
2-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-	-
3&4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-	-
4-Methylphenol	mg/L	-	NLV	NLV	NLV	36000	20	NLV	2900000	16000	1		-	-
Hexachlorobenzene	mg/L	-	56	56	56	37	1.8	220	8500	8.2	0.35		-	-
Hexachlorobutadiene	mg/L	-	460	460	460	350	72	350	180000	350	0.091		-	-
Hexachloroethane	mg/L	-	1400	1400	660	730	1.2	79	100000	110	1.8		-	-
Nitrobenzene	mg/L	-	64	64	64	340	0.33	170	21000	220	3.6		-	-
Pentachlorophenol	mg/L	-	NLV	NLV	NLV	320	0.022	NLV	130000	4.3	26.5		-	-
Pyridine	mg/L	-	97	40	9.8	37	0.42	2	100000	37			-	-
Metals														
Aluminum	mg/kg	6900	NLV	NLV	NLV	370000	1	NLV	ID	-		-	-	-
Antimony	mg/kg	-	NLV	NLV	NLV	670	4.3	NLV	5900	49000	94	-	-	-
Arsenic	mg/kg	5.8	NLV	NLV	NLV	37	4.6	NLV	910	2000	4.6	-	-	-
Barium	mg/kg	75	NLV	NLV	NLV	130000	1300	NLV	150000	-	1250	-	-	-
Beryllium	mg/kg	-	NLV	NLV	NLV	1600	51	NLV	590	-	948	-	-	-
Cadmium	mg/kg	1.2	NLV	NLV	NLV	2100	6	NLV	2200	230000	7.32	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	NA	NLV	NLV	NLV	9200	30	NLV	240	140000	3.3	-	-	-
Cobalt	mg/kg	6.8	NLV	NLV	NLV	9000	2	NLV	5900	48000	2	-	-	-
Copper	mg/kg	32	NLV	NLV	NLV	73000	5800	NLV	59000	-	167	-	-	-
Iron	mg/kg	12000	NLV	NLV	NLV	580000	6	NLV	ID	-		-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample Depth:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Statewide Default Background Levels* *x*	*Nonresidential Finite VSIC for 2 Meter Source Thickness* *a*	*Nonresidential Finite VSIC for 5 Meter Source Thickness* *b*	*Nonresidential Infinite Source Volatile Soil Inhalation Criteria (VSIC)* *c*	*Nonresidential Direct Contact Criteria* *d*	*Nonresidential Drinking Water Protection Criteria* *e*	*Nonresidential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs* *f*	*Nonresidential Particulate Soil Inhalation Criteria & RBSLs* *g*	*Groundwater Contact Protection Criteria* *h*	*Groundwater Surface Water Interface Protection Criteria* *i*	*Soil Saturation Concentration Screening Levels* *j*	*PAOC 19* *MW19-01* *0-2 ft BGS* *S-17303-112003-DD-226* *11/20/2003*	*PAOC 19* *MW19-01* *12.5-14.5 ft BGS* *S-17303-112003-DD-227* *11/20/2003*
Lead	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - coarse fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - fine fraction	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	21	NLV	NLV	NLV	900	700	NLV	44000	ID	7740	-	-	-
Magnesium	mg/kg	-	NLV	NLV	NLV	-	22000	NLV	2900000	-		-	-	-
Manganese	mg/kg	440	NLV	NLV	NLV	90000	1	NLV	1500	180000	128	-	-	-
Mercury	mg/kg	0.13	62	62	62	580	1.7	89	8800	47	0.05	-	-	-
Nickel	mg/kg	20	NLV	NLV	NLV	150000	100	NLV	16000	-	166	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.41	NLV	NLV	NLV	9600	4	NLV	59000	78000	0.4	-	-	-
Silver	mg/kg	1	NLV	NLV	NLV	9000	13	NLV	2900	200000	0.1	-	-	-
Sodium	mg/kg	-	NLV	NLV	NLV	-	7000	NLV	ID	-		-	-	-
Thallium	mg/kg	-	NLV	NLV	NLV	130	2.3	NLV	5900	15000	4.2	-	-	-
Vanadium	mg/kg	-	NLV	NLV	NLV	5500	990	NLV	ID	-	190	-	-	-
Zinc	mg/kg	-	NLV	NLV	NLV	630000	5000	NLV	ID	-	377	-	-	-
Cyanide (total)	mg/kg	-	NLV	NLV	NLV	250	4	NLV	250	250	0.1	-	-	-
PCBs														
Aroclor-10(PCB-1016)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-
Total PCBs	mg/kg	-	28000	28000	810	16	NLL	16000	6500	NLL	NLL	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.5B

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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-04*	*MW19-04*	*MW19-05*	*MW19-24*	*SB19-01*	*SB19-01*
Sample Depth:		*0-2 ft BGS*	*12-14 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*12-13 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-112003-DD-224*	*S-17303-112003-DD-225*	*S-17303-112003-DD-221*	*S-17303-112003-DD-222*	*S-17303-112003-DD-223*	*S-17303-112003-DD-219*	*S-17303-112003-DD-220*	*S-17303-111103-DD-199*	*S-17303-051804-DCR-325*	*S-17303-111303-DD-231*	*S-17303-111303-DD-232*
Sample Date:		*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/11/2003*	*05/18/2004*	*11/13/2003*	*11/13/2003*
Sample Type:					*Duplicate*							*Duplicate*
Parameter:	*Units*											
VOCs												
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,1,2,2-Tetrachloroethane	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
1,1,2-Trichloroethane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,1-Dichloroethane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,1-Dichloroethene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
1,2-Dichlorobenzene	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
1,2-Dichloroethane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.72 U	0.67 UJ	0.75 U	0.72 U	0.7 U	0.68 U	0.78 U	0.67 U	0.75 U	0.7 U	0.73 U
2-Hexanone	mg/kg	2.4 U	2.2 UJ	2.5 U	2.4 U	2.3 U	2.3 U	2.6 U	2.2 U	2.5 U	2.3 U	2.4 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.4 U	2.2 UJ	2.5 U	2.4 U	2.3 U	2.3 U	2.6 U	2.2 U	2.5 U	2.3 U	2.4 U
Acetone	mg/kg	0.72 U	0.67 UJ	0.75 U	0.16 J	0.18 J	0.16 J	0.17 J	0.67 U	0.75 U	0.7 U	0.73 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
Bromoform	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
Bromomethane (Methyl bromide)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Carbon disulfide	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Carbon tetrachloride	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Chlorobenzene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Chloroform (Trichloromethane)	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Chloromethane (Methyl chloride)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
cis-1,2-Dichloroethene	mg/kg	0.048 U	0.85 J	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
cis-1,3-Dichloropropene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Cyclohexane	mg/kg	1.1 U	1.1 UJ	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.1 U	1.2 U	1.1 U	1.2 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-04*	*MW19-04*	*MW19-05*	*MW19-24*	*SB19-01*	*SB19-01*
Sample Depth:		*0-2 ft BGS*	*12-14 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*12-13 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-112003-DD-224*	*S-17303-112003-DD-225*	*S-17303-112003-DD-221*	*S-17303-112003-DD-222*	*S-17303-112003-DD-223*	*S-17303-112003-DD-219*	*S-17303-112003-DD-220*	*S-17303-111103-DD-199*	*S-17303-051804-DCR-325*	*S-17303-111303-DD-231*	*S-17303-111303-DD-232*
Sample Date:		*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/11/2003*	*05/18/2004*	*11/13/2003*	*11/13/2003*
Sample Type:					*Duplicate*							*Duplicate*
Parameter:	*Units*											
Isopropyl benzene	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Methyl acetate	mg/kg	1.1 U	1.1 UJ	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.1 U	1.2 U	1.1 U	1.2 U
Methyl cyclohexane	mg/kg	1.1 U	1.1 UJ	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.1 U	1.2 U	1.1 U	1.2 U
Methyl tert butyl ether (MTBE)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Methylene chloride	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Tetrachloroethene	mg/kg	0.048 U	0.015 J	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Toluene	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
trans-1,2-Dichloroethene	mg/kg	0.048 U	0.058 J	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
trans-1,3-Dichloropropene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.048 U	0.044 UJ	0.05 U	0.048 U	0.047 U	0.046 U	0.052 U	0.045 U	0.05 U	0.047 U	0.048 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.24 U	0.22 UJ	0.25 U	0.24 U	0.23 U	0.23 U	0.26 U	0.22 U	0.25 U	0.23 U	0.24 U
Vinyl chloride	mg/kg	0.095 U	0.089 UJ	0.1 U	0.096 U	0.094 U	0.091 U	0.1 U	0.09 U	0.1 U	0.093 U	0.097 U
Xylenes (total)	mg/kg	0.48 U	0.44 UJ	0.5 U	0.48 U	0.47 U	0.46 U	0.52 U	0.45 U	0.5 U	0.47 U	0.48 U
TCLP VOCs												
1,1-Dichloroethene	mg/L											
1,2-Dichloroethane	mg/L											
1,4-Dichlorobenzene	mg/L											
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L											
Benzene	mg/L											
Carbon tetrachloride	mg/L											
Chlorobenzene	mg/L											
Chloroform (Trichloromethane)	mg/L											
Tetrachloroethene	mg/L											
Trichloroethene	mg/L											
Vinyl chloride	mg/L											
SVOCs												
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW19-02***	***MW19-02***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-04***	***MW19-04***	***MW19-05***	***MW19-24***	***SB19-01***	***SB19-01***
Sample Depth:		***0-2 ft BGS***	***12-14 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***	***11-13 ft BGS***	***0-2 ft BGS***	***7-9 ft BGS***	***0-2 ft BGS***	***12-13 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***
Sample ID:		***S-17303-112003-DD-224***	***S-17303-112003-DD-225***	***S-17303-112003-DD-221***	***S-17303-112003-DD-222***	***S-17303-112003-DD-223***	***S-17303-112003-DD-219***	***S-17303-112003-DD-220***	***S-17303-111103-DD-199***	***S-17303-051804-DCR-325***	***S-17303-111303-DD-231***	***S-17303-111303-DD-232***
Sample Date:		***11/20/2003***	***11/20/2003***	***11/20/2003***	***11/20/2003***	***11/20/2003***	***11/20/2003***	***11/20/2003***	***11/11/2003***	***05/18/2004***	***11/13/2003***	***11/13/2003***
Sample Type:					***Duplicate***							***Duplicate***
Parameter:	***Units***											
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-04*	*MW19-04*	*MW19-05*	*MW19-24*	*SB19-01*	*SB19-01*
Sample Depth:		*0-2 ft BGS*	*12-14 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*12-13 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-112003-DD-224*	*S-17303-112003-DD-225*	*S-17303-112003-DD-221*	*S-17303-112003-DD-222*	*S-17303-112003-DD-223*	*S-17303-112003-DD-219*	*S-17303-112003-DD-220*	*S-17303-111103-DD-199*	*S-17303-051804-DCR-325*	*S-17303-111303-DD-231*	*S-17303-111303-DD-232*
Sample Date:		*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/11/2003*	*05/18/2004*	*11/13/2003*	*11/13/2003*
Sample Type:					*Duplicate*							*Duplicate*
Parameter:	***Units***											
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TCLP SVOCs												
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-04*	*MW19-04*	*MW19-05*	*MW19-24*	*SB19-01*	*SB19-01*
Sample Depth:		*0-2 ft BGS*	*12-14 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*11-13 ft BGS*	*0-2 ft BGS*	*7-9 ft BGS*	*0-2 ft BGS*	*12-13 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*
Sample ID:		*S-17303-112003-DD-224*	*S-17303-112003-DD-225*	*S-17303-112003-DD-221*	*S-17303-112003-DD-222*	*S-17303-112003-DD-223*	*S-17303-112003-DD-219*	*S-17303-112003-DD-220*	*S-17303-111103-DD-199*	*S-17303-051804-DCR-325*	*S-17303-111303-DD-231*	*S-17303-111303-DD-232*
Sample Date:		*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/20/2003*	*11/11/2003*	*05/18/2004*	*11/13/2003*	*11/13/2003*
Sample Type:					*Duplicate*							*Duplicate*
Parameter:	***Units***											
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*SB19-01*	*SB19-02*	*SB19-02*	*SB19-01*	*SB19-01*	*SB19-01*	*SB19-02*	*SB19-02*
Sample Depth:		*10-12 ft BGS*	*0-2 ft BGS*	*8.5-10.5 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*10-12 ft BGS*	*0-2 ft BGS*	*8.5-10.5 ft BGS*
Sample ID:		*S-17303-111303-DD-233*	*S-17303-111303-DD-234*	*S-17303-111303-DD-235*	*S-17303-111303-DD-231*	*S-17303-111303-DD-232*	*S-17303-111303-DD-233*	*S-17303-111303-DD-234*	*S-17303-111303-DD-235*
Sample Date:		*11/13/2003*	*11/13/2003*	*11/13/2003*	*11/13/2003*	*11/13/2003*	*11/13/2003*	*11/13/2003*	*11/13/2003*
Sample Type:						*Duplicate*			
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,1,2,2-Tetrachloroethane	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,1-Dichloroethane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,1-Dichloroethene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,2,3-Trichloropropane	mg/kg	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
1,2,4-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
1,2-Dichlorobenzene	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
1,2-Dichloroethane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,2-Dichloroethene (total)	mg/kg	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
1,3,5-Trimethylbenzene	mg/kg	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
1-Chloro-2,3-epoxypropane	mg/kg	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.75 U	0.68 U	0.81 U	0.7 U	0.73 U	0.75 U	0.68 U	0.81 U
2-Hexanone	mg/kg	2.5 U	2.3 U	2.7 U	2.3 U	2.4 U	2.5 U	2.3 U	2.7 U
2-Nitropropane	mg/kg	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.5 U	2.3 U	2.7 U	2.3 U	2.4 U	2.5 U	2.3 U	2.7 U
Acetone	mg/kg	0.75 U	0.68 U	0.81 U	0.7 U	0.73 U	0.75 U	0.68 U	0.81 U
alpha-Methylstyrene	mg/kg	-	-	-	-	-	-	-	-
Benzene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Bromobenzene	mg/kg	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
Bromoform	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
Bromomethane (Methyl bromide)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Carbon disulfide	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Carbon tetrachloride	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Chlorobenzene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Chlorobromomethane	mg/kg	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Chloroform (Trichloromethane)	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Chloromethane (Methyl chloride)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
cis-1,2-Dichloroethene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
cis-1,3-Dichloropropene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Cyclohexane	mg/kg	1.2 U	0.037 J	1.3 U	1.1 U	1.2 U	1.2 U	0.037 J	1.3 U
Cyclohexanone	mg/kg	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Dibromomethane	mg/kg	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
Ethyl ether	mg/kg	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.05 U	0.015 J	0.054 U	0.047 U	0.048 U	0.05 U	0.015 J	0.054 U
Iodomethane	mg/kg	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB19-01***	***SB19-02***	***SB19-02***	***SB19-01***	***SB19-01***	***SB19-01***	***SB19-02***	***SB19-02***
Sample Depth:		***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***	***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***
Sample ID:		***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***	***S-17303-111303-DD-231***	***S-17303-111303-DD-232***	***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***
Sample Date:		***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***
Sample Type:						***Duplicate***			
Parameter:	***Units***								
Isopropyl benzene	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Methyl acetate	mg/kg	1.2 U	1.1 U	1.3 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U
Methyl cyclohexane	mg/kg	1.2 U	0.11 J	1.3 U	1.1 U	1.2 U	1.2 U	0.11 J	1.3 U
Methyl tert butyl ether (MTBE)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Methylene chloride	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Naphthalene	mg/kg	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	-	-
p-Xylene	mg/kg	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Tetrachloroethene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Toluene	mg/kg	0.099 U	0.055 J	0.11 U	0.093 U	0.097 U	0.099 U	0.055 J	0.11 U
trans-1,2-Dichloroethene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
trans-1,3-Dichloropropene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
trans-1,4-Dichloro-2-butene	mg/kg	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.05 U	0.045 U	0.054 U	0.047 U	0.048 U	0.05 U	0.045 U	0.054 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	0.25 U	0.23 U	0.27 U	0.23 U	0.24 U	0.25 U	0.23 U	0.27 U
Vinyl chloride	mg/kg	0.099 U	0.091 U	0.11 U	0.093 U	0.097 U	0.099 U	0.091 U	0.11 U
Xylenes (total)	mg/kg	0.5 U	0.13 J	0.54 U	0.47 U	0.48 U	0.5 U	0.13 J	0.54 U
TCLP VOCs									
1,1-Dichloroethene	mg/L								
1,2-Dichloroethane	mg/L								
1,4-Dichlorobenzene	mg/L								
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L								
Benzene	mg/L								
Carbon tetrachloride	mg/L								
Chlorobenzene	mg/L								
Chloroform (Trichloromethane)	mg/L								
Tetrachloroethene	mg/L								
Trichloroethene	mg/L								
Vinyl chloride	mg/L								
SVOCs									
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB19-01***	***SB19-02***	***SB19-02***	***SB19-01***	***SB19-01***	***SB19-01***	***SB19-02***	***SB19-02***
Sample Depth:		***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***	***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***
Sample ID:		***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***	***S-17303-111303-DD-231***	***S-17303-111303-DD-232***	***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***
Sample Date:		***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***
Sample Type:						***Duplicate***			
Parameter:	***Units***								
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB19-01***	***SB19-02***	***SB19-02***	***SB19-01***	***SB19-01***	***SB19-01***	***SB19-02***	***SB19-02***
Sample Depth:		***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***	***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***
Sample ID:		***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***	***S-17303-111303-DD-231***	***S-17303-111303-DD-232***	***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***
Sample Date:		***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***
Sample Type:						***Duplicate***			
Parameter:	***Units***								
Pyrene	mg/kg	-	-	-	-	-	-	-	-
Pyridine	mg/kg	-	-	-	-	-	-	-	-
TCLP SVOCs									
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-
Pyridine	mg/L	-	-	-	-	-	-	-	-
Metals									
Aluminum	mg/kg	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-

APPENDIX F.5B

SITE WIDE SOIL ANALYTICAL RESULTS POST 1997
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB19-01***	***SB19-02***	***SB19-02***	***SB19-01***	***SB19-01***	***SB19-01***	***SB19-02***	***SB19-02***
Sample Depth:		***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***	***0-2 ft BGS***	***0-2 ft BGS***	***10-12 ft BGS***	***0-2 ft BGS***	***8.5-10.5 ft BGS***
Sample ID:		***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***	***S-17303-111303-DD-231***	***S-17303-111303-DD-232***	***S-17303-111303-DD-233***	***S-17303-111303-DD-234***	***S-17303-111303-DD-235***
Sample Date:		***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***	***11/13/2003***
Sample Type:						***Duplicate***			
Parameter:	***Units***								
Lead	mg/kg	-	-	-	-	-	-	-	-
Lead - coarse fraction	mg/kg	-	-	-	-	-	-	-	-
Lead - fine fraction	mg/kg	-	-	-	-	-	-	-	-
Lead - total (calculated by fine/coarse fraction)	mg/kg	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-
PCBs									
Aroclor-10(PCB-1016)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1221)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1232)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1242)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1248)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1254)	mg/kg	-	-	-	-	-	-	-	-
Aroclor-12(PCB-1260)	mg/kg	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*	*Off-Site*
Sample Location:												*BH-13-00*
Sample ID:												*W-1190514-042700-BW-031*
Sample Date:												*04/27/2000*
Sample Type:												
Parameter:	*Units*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
VOCs												
1,1,1,2-Tetrachloroethane	mg/L	ID	ID	30	ID	0.32	96	1100	0.077	15	ID	-
1,1,1-Trichloroethane	mg/L	1300	ID	1300	0.089	0.2	1300	1330	0.2	660	1.6	-
1,1,2,2-Tetrachloroethane	mg/L	ID	ID	4.7	0.078	0.035	77	2970	0.0085	12	1.8	-
1,1,2-Trichloroethane	mg/L	ID	-	21	0.33	0.005	110	4420	0.005	17	6.4	-
1,1-Dichloroethane	mg/L	ID	380	2400	0.74	2.5	2300	5060	0.88	1000	13	-
1,1-Dichloroethene	mg/L	140	97	11	0.13	0.007	1.3	2250	0.007	0.2	2.3	0.001 U
1,2,3-Trichloropropane	mg/L	ID	-	84	-	0.12	180	1900	0.042	83	-	-
1,2,4-Trichlorobenzene	mg/L	300	-	19	0.099	0.07	300	300	0.07	300	0.2	-
1,2,4-Trimethylbenzene	mg/L	ID	56	56	0.017	0.063	56	55.89	0.063	56	0.31	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ID	-	0.39	-	0.0002	1.2	1.23	0.0002	1.2	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ID	ID	0.025	0.0057	0.00005	15	4200	0.00005	2.4	0.28	-
1,2-Dichlorobenzene	mg/L	160	-	160	0.013	0.6	160	156	0.6	160	0.24	-
1,2-Dichloroethane	mg/L	ID	2500	19	0.36	0.005	59	8520	0.005	9.6	16	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	19	-
1,2-Dichloropropane	mg/L	2800	550	16	0.23	0.005	36	2800	0.005	16	4	-
1,3,5-Trimethylbenzene	mg/L	ID	ID	61	0.045	0.072	61	61.15	0.072	61	0.81	-
1,3-Dichlorobenzene	mg/L	ID	ID	2	0.028	0.019	41	111	0.0066	18	0.2	-
1,3-Dichloropropene	mg/L	ID	130	5.5	0.009	0.035	26	2800	0.0085	3.9	0.16	-
1,4-Dichlorobenzene	mg/L	ID	-	6.4	0.017	0.075	74	73.8	0.075	16	0.21	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	240000	ID	240000	2.2	38	240000	240000	13	240000	40	-
2-Hexanone	mg/L	ID	-	5200	ID	2.9	8700	16000	1	4200	ID	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	20000	ID	13000	ID	5.2	20000	20000	1.8	20000	ID	-
Acetone	mg/L		15000	31000	1.7	2.1		1000000	0.73		30	-
Benzene	mg/L	67	68	11	0.2	0.005	35	1750	0.005	5.6	1.9	-
Bromodichloromethane	mg/L	ID	ID	14	ID	0.08	37	6740	0.08	4.8	ID	-
Bromoform	mg/L	ID	ID	140	ID	0.08	3100	3100	0.08	470	ID	-
Bromomethane (Methyl bromide)	mg/L	ID	ID	70	0.035	0.029	9	14500	0.01	4	0.64	-
Carbon disulfide	mg/L	ID	13	1200	ID	2.3	550	1190	0.8	250	ID	-
Carbon tetrachloride	mg/L	96	ID	4.6	0.045	0.005	2.4	793	0.005	0.37	1.4	-
Chlorobenzene	mg/L	ID	160	86	0.025	0.1	470	472	0.1	210	0.45	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	ID	-
Chloroethane	mg/L	ID	110	440	1.1	1.7	5700	5740	0.43	5700	20	-
Chloroform (Trichloromethane)	mg/L	ID	ID	150	0.35	0.08	180	7920	0.08	28	11	-
Chloromethane (Methyl chloride)	mg/L	210	36	490	ID	1.1	45	6340	0.26	8.6	ID	-
cis-1,2-Dichloroethene	mg/L	ID	530	200	0.62	0.07	210	3500	0.07	93	11	0.001 U
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16	-
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	ID	-
Dibromochloromethane	mg/L	ID	ID	18	ID	0.08	110	2600	0.08	14	ID	-
Dibromomethane	mg/L	ID	ID	530	-	0.23	ID	11000	0.08	ID	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	ID	ID	300	ID	4.8	300	300	1.7	220	ID	-
Ethyl ether	mg/L	61000	650	35000	ID	0.01	61000	61000	0.01	61000	ID	-
Ethylbenzene	mg/L	170	43	170	0.018	0.074	170	169	0.074	110	0.32	-
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*	*Off-Site*
Sample Location:												***BH-13-00***
Sample ID:												***W-1190514-042700-BW-031***
Sample Date:												***04/27/2000***
Sample Type:												
Parameter:	***Units***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***	
Isopropyl benzene	mg/L	ID	29	56	0.028	2.3	56	56	0.8	56	0.5	-
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	ID	ID	610	7.1	0.04	47000	46800	0.04	47000	420	-
Methylene chloride	mg/L	ID	ID	220	1.5	0.005	1400	17000	0.005	220	17	-
m-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-	-
Naphthalene	mg/L	31	-	31	0.011	1.5	31	31	0.52	31	0.2	-
N-Propylbenzene	mg/L	ID	ID	15	ID	0.23	ID	-	0.08	ID	ID	-
o-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-	-
Styrene	mg/L	310	140	9.7	0.08	0.1	310	310	0.1	170	2.9	-
Tetrachloroethene	mg/L	200	ID	12	0.06	0.005	170	200	0.005	25	2.9	-
Toluene	mg/L	ID	61	530	0.27	0.79	530	526	0.79	530	2.6	-
trans-1,2-Dichloroethene	mg/L	ID	230	220	1.5	0.1	200	6300	0.1	85	28	0.001 U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1100	ID	22	0.2	0.005	97	1100	0.005	15	3.5	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	1100	ID	1100	-	7.3	1100	1100	2.6	1100	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	170	ID	170	0.032	170	170	170	170	170	0.57	-
Vinyl chloride	mg/L	ID	33	1	0.013	0.002	13	2760	0.002	1.1	17	0.001 U
Xylenes (total)	mg/L	190	70	190	0.041	0.28	190	186	0.28	190	0.73	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Off-Site*	*Off-Site*	*Off-Site*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*BH-13-00*	*BH-15-00*	*BH-16-00*	*BH9-99*	*GP-18*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*
Sample ID:		*W-1190514-042700-BW-032*	*W-1190514-050400-BW-034*	*W-1190514-042700-BW-033*	*W-1190511-111999-SN-020*	*GP-18*	*GW-17303-041003-DCR-188*	*17303-062703-HH-GS5-210*	*GW-17303-120303-DCR-273*	*GW-17303-040104-DCR-311*	*GW-17303-070104-DR-378*
Sample Date:		*04/27/2000*	*05/04/2000*	*04/27/2000*	*11/19/1999*	*04/22/1996*	*04/10/2003*	*06/27/2003*	*12/03/2003*	*04/01/2004*	*07/01/2004*
Sample Type:		*Duplicate*									
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	-	-	-
1,1,1-Trichloroethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,1,2,2-Tetrachloroethane	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,1,2-Trichloroethane	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,1-Dichloroethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.25 U	0.001 U	0.001 U	0.001	0.056 U	0.056 U	0.083 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	0.001 U	0.001 U	-	-	-
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.28 U	0.28 U	0.42 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	0.01 U	-	0.001 U	0.001 U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	0.056 U	0.056 U	0.083 U
1,2-Dichlorobenzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,2-Dichloroethane	mg/L	-	-	-	-	-	0.002	0.001 U	0.056 U	0.056 U	0.083 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	12 U	-	0.025 U	0.025 U	1.4 U	1.4 U	2.1 U
2-Hexanone	mg/L	-	-	-	-	-	0.05 U	0.05 U	2.8 U	2.8 U	4.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	-	-	-	-	-	0.05 U	0.05 U	2.8 U	2.8 U	4.2 U
Acetone	mg/L	-	-	-	-	-	0.025 U	0.025 U	1.4 U	1.4 U	0.093 J
Benzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Bromodichloromethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Bromoform	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Bromomethane (Methyl bromide)	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Carbon disulfide	mg/L	-	-	-	-	-	0.005 U	0.005 U	0.28 U	0.28 U	0.42 U
Carbon tetrachloride	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Chlorobenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Chlorobromomethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	-	-	-
Chloroethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Chloromethane (Methyl chloride)	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	**39.6**[dehj]	0.007	**1.2**[deh]	**3.2**[deh]	**2.1**[deh]	**2.1**[deh]	**2.4**[deh]
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	0.056 U	0.056 U	0.083 U
Dibromochloromethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Dibromomethane	mg/L	-	-	-	-	-	0.001 U	0.001 U	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Ethyl ether	mg/L	-	-	-	-	-	0.02 U	0.02 U	-	-	-
Ethylbenzene	mg/L	-	-	-	0.25 U	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Iodomethane	mg/L	-	-	-	-	-	0.01 U	0.01 U	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Off-Site*	*Off-Site*	*Off-Site*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		***BH-13-00***	***BH-15-00***	***BH-16-00***	***BH9-99***	***GP-18***	***GS-5***	***GS-5***	***GS-5***	***GS-5***	***GS-5***
Sample ID:		***W-1190514-042700-BW-032***	***W-1190514-050400-BW-034***	***W-1190514-042700-BW-033***	***W-1190511-111999-SN-020***	***GP-18***	***GW-17303-041003-DCR-188***	***17303-062703-HH-GS5-210***	***GW-17303-120303-DCR-273***	***GW-17303-040104-DCR-311***	***GW-17303-070104-DR-378***
Sample Date:		***04/27/2000***	***05/04/2000***	***04/27/2000***	***11/19/1999***	***04/22/1996***	***04/10/2003***	***06/27/2003***	***12/03/2003***	***04/01/2004***	***07/01/2004***
Sample Type:		***Duplicate***									
Parameter:	***Units***										
Isopropyl benzene	mg/L	-	-	-	-	-	0.005 U	0.005 U	0.28 U	0.28 U	0.42 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	0.56 U	0.56 U	0.83 U
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	0.056 U	0.056 U	0.083 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	0.28 U	0.28 U	0.42 U
Methylene chloride	mg/L	-	-	-	-	-	0.005 U	0.005 U	0.28 U	0.28 U	0.42 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	1.2 U	-	0.005 U	0.005 U	-	-	-
N-Propylbenzene	mg/L	-	-	-	0.25 U	-	0.005 U	0.005 U	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Tetrachloroethene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Toluene	mg/L	-	-	-	0.25 U	-	0.001	0.001	0.056 U	0.056 U	0.083 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.25 U	0.001 U	0.011	0.055	0.034 J	0.04 J	0.045 J
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	0.05 U	0.05 U	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	**17.5**[dehij]	0.001 U	0.001 U	0.001 U	0.056 U	0.056 U	0.083 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	0.056 U	0.056 U	0.083 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	0.056 U	0.056 U	0.083 U
Vinyl chloride	mg/L	0.001 U	**0.02**[deh]	0.001 U	0.25 U	**0.033**[deh]	**0.43**[deh]	**0.65**[deh]	**1.2**[cdehi]	**0.28**[deh]	**0.32**[deh]
Xylenes (total)	mg/L	-	-	-	0.03 U	-	0.003 U	0.003 U	0.11 U	0.11 U	0.17 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*
Sample ID:		*GW-17303-092304-MM-642*	*GW-17303-121004-DCR-665*	*GW-17303-041305-DR-699*	*WG-17303-062305-DR-0819*	*WG-17303-100605-AB-0896*	*WG-17303-062906-LA-010*	*WG-17303-100306-EV-047*	*WG-17303-120506-AF-002*	*WG-17303-060507-EV-004*
Sample Date:		*09/23/2004*	*12/10/2004*	*04/13/2005*	*06/23/2005*	*10/06/2005*	*06/29/2006*	*10/03/2006*	*12/05/2006*	*06/05/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,1,2,2-Tetrachloroethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 UJ
1,1,2-Trichloroethane	mg/L	0.071 U	0.04 U	0.00029 J	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,1-Dichloroethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,1-Dichloroethene	mg/L	0.071 U	0.04 U	0.0072[eh]	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.36 U	0.2 U	0.005 U	2.1 U	1.3 U	0.31 U	0.83 U	0.25 U	1.2 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	0.25 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,2-Dichlorobenzene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,2-Dichloroethane	mg/L	0.071 U	0.04 U	0.005	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	0.25 U
1,3-Dichlorobenzene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.071 U	0.04 U	0.00012 J	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	1.8 U	1 U	0.025 U	10 U	6.3 U	1.6 U	4.2 U	1.2 U	6.2 U
2-Hexanone	mg/L	3.6 U	2 U	0.05 U	21 U	13 U	3.1 U	8.3 U	2.5 U	12 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	3.6 U	2 U	0.05 U	21 U	13 U	3.1 U	8.3 UJ	2.5 U	12 U
Acetone	mg/L	1.8 U	1 U	0.025 U	10 U	6.3 U	0.25 J	4.2 U	1.2 U	6.2 U
Benzene	mg/L	0.071 U	0.04 U	0.0045	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Bromodichloromethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 UJ	0.05 U	0.25 U
Bromoform	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Bromomethane (Methyl bromide)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Carbon disulfide	mg/L	0.36 U	0.2 U	0.002 J	2.1 U	1.3 U	0.31 UJ	0.83 U	0.25 U	1.2 U
Carbon tetrachloride	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Chlorobenzene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Chloroform (Trichloromethane)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Chloromethane (Methyl chloride)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
cis-1,2-Dichloroethene	mg/L	2.2[deh]	1.3[deh]	4.2 J[deh]	3.4[deh]	1.5[deh]	3[deh]	1.3[deh]	1.4[deh]	3.3[deh]
cis-1,3-Dichloropropene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 UJ	0.05 U	0.25 U
Cyclohexane	mg/L	0.071 U	0.04 U	0.00018 J	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Dibromochloromethane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 UJ	0.17 U	0.05 U	0.25 UJ
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.071 U	0.04 U	0.00052 J	0.16 J[deh]	0.25 U	0.062 U	0.17 UJ	0.05 U	0.25 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*
Sample ID:		*GW-17303-092304-MM-642*	*GW-17303-121004-DCR-665*	*GW-17303-041305-DR-699*	*WG-17303-062305-DR-0819*	*WG-17303-100605-AB-0896*	*WG-17303-062906-LA-010*	*WG-17303-100306-EV-047*	*WG-17303-120506-AF-002*	*WG-17303-060507-EV-004*
Sample Date:		*09/23/2004*	*12/10/2004*	*04/13/2005*	*06/23/2005*	*10/06/2005*	*06/29/2006*	*10/03/2006*	*12/05/2006*	*06/05/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.36 U	0.2 U	0.005 U	2.1 U	1.3 U	0.31 U	0.83 U	0.25 U	1.2 U
Methyl acetate	mg/L	0.71 U	0.4 U	0.01 U	4.2 U	2.5 U	0.62 U	1.7 U	0.5 U	2.5 UJ
Methyl cyclohexane	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Methyl tert butyl ether (MTBE)	mg/L	0.36 U	0.2 U	0.005 U	2.1 U	1.3 U	0.31 U	0.83 U	0.25 U	1.2 U
Methylene chloride	mg/L	0.36 U	0.2 U	0.005 U	2.1 U	1.3 U	0.31 U	0.83 U	0.25 U	1.2 U
m-Xylene	mg/L	-	-	0.00031 J	**0.33 J[eh]**	0.5 U	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	0.00043 J	0.13 J	0.25 U	-	-	-	-
Styrene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Tetrachloroethene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 UJ	0.05 U	0.25 U
Toluene	mg/L	0.071 U	0.04 U	0.0026	0.06 J	0.25 U	0.013 J	0.17 U	0.05 U	0.25 U
trans-1,2-Dichloroethene	mg/L	0.042 J	0.031 J	0.063 J	0.42 U	0.25 U	0.024 J	0.17 U	0.012 J	0.25 U
trans-1,3-Dichloropropene	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 UJ	0.05 U	0.25 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.071 U	0.04 U	**0.027 J[eh]**	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Trichlorofluoromethane (CFC-11)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.071 U	0.04 U	0.001 U	0.42 U	0.25 U	0.062 U	0.17 U	0.05 U	0.25 U
Vinyl chloride	mg/L	**0.47[deh]**	**0.11[deh]**	**6.8 J[cdehi]**	**5.5[cdehi]**	**4.6[cdehi]**	**6[cdehi]**	**4.6[cdehi]**	**1.7[cdehi]**	**7.5[cdehi]**
Xylenes (total)	mg/L	0.14 U	0.08 U	0.00077 J	**0.5 J[deh]**	0.75 U	0.12 U	0.33 U	0.1 U	0.5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-090607-NRS-026*	*GW-17303-120607-DR-023*	*WG-17303-062205-DR-0809*	*WG-17303-100605-AB-0898*	*WG-17303-121405-NR-0918*	*WG-17303-030806-LA-0953*	*WG-17303-062906-LA-006*	*WG-17303-100306-NRS-048*	*WG-17303-120506-AF-001*
Sample Date:		*09/06/2007*	*12/06/2007*	*06/22/2005*	*10/06/2005*	*12/14/2005*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/05/2006*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,1,2,2-Tetrachloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,1,2-Trichloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,1-Dichloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,1-Dichloroethene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.71 U	0.56 U	0.31 U	0.36 U	0.31 U	0.71 U	0.25 U	0.14 U	1.2 U
1,2,4-Trimethylbenzene	mg/L	0.14 U	0.11 U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,2-Dichlorobenzene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,2-Dichloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,3,5-Trimethylbenzene	mg/L	0.14 U	0.11 U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	3.6 U	2.8 U	1.6 U	1.8 U	1.6 U	3.6 U	1.2 U	0.71 U	6.2 U
2-Hexanone	mg/L	7.1 U	5.6 U	3.1 U	3.6 U	3.1 U	7.1 U	2.5 U	1.4 U	12 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	7.1 U	5.6 U	3.1 UJ	3.6 U	3.1 U	7.1 U	2.5 U	1.4 UJ	12 U
Acetone	mg/L	3.6 U	2.8 U	R	0.38 J	1.6 U	3.6 U	0.2 J	0.71 U	6.2 U
Benzene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Bromodichloromethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 UJ	0.25 U
Bromoform	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Bromomethane (Methyl bromide)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Carbon disulfide	mg/L	0.71 U	0.56 U	0.31 U	0.36 U	0.31 U	0.71 U	0.25 UJ	0.14 U	1.2 U
Carbon tetrachloride	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Chlorobenzene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Chloroform (Trichloromethane)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Chloromethane (Methyl chloride)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
cis-1,2-Dichloroethene	mg/L	**2.7**^{deh}	**2.6**^{deh}	**1.6**^{deh}	**1**^{deh}	**0.83**^{deh}	**2.3**^{deh}	**2.1**^{deh}	**0.38**^{eh}	**6.7 J**^{deh}
cis-1,3-Dichloropropene	mg/L	0.14 U	0.11 U	0.062 U	0.071 UJ	0.063 U	0.14 U	0.05 U	0.029 UJ	0.25 U
Cyclohexane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Dibromochloromethane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.14 U	0.11 U	0.062 UJ	0.071 U	0.063 U	0.14 U	0.05 UJ	0.029 U	0.25 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.14 U	0.11 U	0.014 J	0.013 J	0.063 U	0.14 U	0.05 U	0.029 UJ	0.25 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-090607-NRS-026*	*GW-17303-120607-DR-023*	*WG-17303-062205-DR-0809*	*WG-17303-100605-AB-0898*	*WG-17303-121405-NR-0918*	*WG-17303-030806-LA-0953*	*WG-17303-062906-LA-006*	*WG-17303-100306-NRS-048*	*WG-17303-120506-AF-001*
Sample Date:		*09/06/2007*	*12/06/2007*	*06/22/2005*	*10/06/2005*	*12/14/2005*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/05/2006*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.71 U	0.56 U	0.31 U	0.36 U	0.31 U	0.71 U	0.25 U	0.14 U	1.2 U
Methyl acetate	mg/L	1.4 U	1.1 U	0.62 U	0.71 UJ	0.63 U	1.4 U	0.5 U	0.29 U	2.5 U
Methyl cyclohexane	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Methyl tert butyl ether (MTBE)	mg/L	0.71 U	0.56 U	0.31 U	0.36 U	0.31 U	0.71 U	0.25 U	0.14 U	1.2 U
Methylene chloride	mg/L	0.71 U	0.56 U	0.31 U	0.36 U	0.31 U	0.71 U	0.25 U	0.14 U	1.2 U
m-Xylene	mg/L	-	-	-	0.033 J	0.13 U	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	0.024 J	0.063 U	-	-	-	-
Styrene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Tetrachloroethene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 UJ	0.25 U
Toluene	mg/L	0.14 U	0.11 U	0.017 J	0.0098 J	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
trans-1,2-Dichloroethene	mg/L	0.14 U	0.11 U	0.016 J	0.017 J	0.011 J	0.041 J	0.047 J	0.022 J	**0.32[eh]**
trans-1,3-Dichloropropene	mg/L	0.14 U	0.11 U	0.062 U	0.071 UJ	0.063 U	0.14 U	0.05 U	0.029 UJ	0.25 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Trichlorofluoromethane (CFC-11)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.14 U	0.11 U	0.062 U	0.071 U	0.063 U	0.14 U	0.05 U	0.029 U	0.25 U
Vinyl chloride	mg/L	**5[cdehi]**	**3.2[cdehi]**	**1.1[cdeh]**	**1.3[cdehi]**	**0.83[deh]**	**3.9[cdehi]**	**4.6[cdehi]**	**1.1[cdeh]**	**5.7 J[cdehi]**
Xylenes (total)	mg/L	0.29 U	0.22 U	**0.069 J[d]**	**0.059 J[d]**	0.19 U	0.29 U	0.024 J	0.057 U	0.5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-031207-EV-031*	*WG-17303-060507-EV-005*	*WG-17303-090507-DR-011*	*WG-17303-120507-DR-011*	*WG-17303-032608-CB-019*	*WG-17303-061908-CB-017*	*WG-17303-092408-CB-045*	*WG-17303-120908-CB-059*	*WG-17303-032409-LS-078*
Sample Date:		*03/12/2007*	*06/05/2007*	*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/09/2008*	*03/24/2009*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,1,2,2-Tetrachloroethane	mg/L	0.17 U	0.17 UJ	0.14 U	0.17 U	0.11 U	0.14 U	0.12 UJ	0.14 U	0.11 U
1,1,2-Trichloroethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,1-Dichloroethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,1-Dichloroethene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.83 U	0.83 U	0.71 U	0.83 U	0.56 U	0.71 U	0.62 U	0.71 U	0.56 U
1,2,4-Trimethylbenzene	mg/L	-	0.17 U	0.14 U	0.17 U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,2-Dichlorobenzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,2-Dichloroethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,3,5-Trimethylbenzene	mg/L	-	0.17 U	0.14 U	0.17 U	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	4.2 U	4.2 U	3.6 U	4.2 U	2.8 U	3.6 U	3.1 U	3.6 U	2.8 U
2-Hexanone	mg/L	8.3 U	8.3 U	7.1 U	8.3 U	5.6 U	7.1 U	6.2 U	7.1 U	5.6 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	8.3 U	8.3 U	7.1 U	8.3 U	5.6 U	7.1 U	6.2 U	7.1 U	5.6 U
Acetone	mg/L	4.2 U	4.2 U	3.6 U	4.2 U	2.8 U	3.6 U	3.1 U	3.6 U	2.8 U
Benzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Bromodichloromethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Bromoform	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 UJ	0.14 U	0.11 U
Bromomethane (Methyl bromide)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Carbon disulfide	mg/L	0.83 U	0.83 U	0.71 U	0.83 U	0.56 U	0.71 U	0.62 U	0.71 U	0.56 U
Carbon tetrachloride	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Chlorobenzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 UJ	0.14 U	0.12 U	0.14 U	0.11 U
Chloroform (Trichloromethane)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Chloromethane (Methyl chloride)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
cis-1,2-Dichloroethene	mg/L	**4.6**[deh]	**4.8**[deh]	**4.5**[deh]	**4.8**[deh]	**3.1**[deh]	**3.6**[deh]	**3.9**[deh]	**4.3**[deh]	**3.1**[deh]
cis-1,3-Dichloropropene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 UJ	0.14 UJ	0.11 U
Cyclohexane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Dibromochloromethane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.17 U	0.17 UJ	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 UJ	0.11 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 UJ	0.12 U	0.14 U	0.11 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-031207-EV-031*	*WG-17303-060507-EV-005*	*WG-17303-090507-DR-011*	*WG-17303-120507-DR-011*	*WG-17303-032608-CB-019*	*WG-17303-061908-CB-017*	*WG-17303-092408-CB-045*	*WG-17303-120908-CB-059*	*WG-17303-032409-LS-078*
Sample Date:		*03/12/2007*	*06/05/2007*	*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/09/2008*	*03/24/2009*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.83 U	0.83 U	0.71 U	0.83 U	0.56 U	0.71 U	0.62 U	0.71 U	0.56 U
Methyl acetate	mg/L	1.7 U	1.7 UJ	1.4 U	1.7 U	1.1 U	1.4 U	1.2 U	1.4 U	1.1 U
Methyl cyclohexane	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Methyl tert butyl ether (MTBE)	mg/L	0.83 U	0.83 U	0.71 U	0.83 U	0.56 U	0.71 U	0.62 U	0.71 U	0.56 U
Methylene chloride	mg/L	0.83 U	0.83 U	0.71 U	0.83 U	0.56 U	0.71 U	0.62 U	0.71 U	0.56 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Tetrachloroethene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Toluene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
trans-1,2-Dichloroethene	mg/L	**0.22**[eh]	**0.25**[eh]	**0.22**[eh]	**0.22**[eh]	**0.18**[eh]	**0.18**[eh]	**0.2**[eh]	**0.2**[eh]	**0.16**[eh]
trans-1,3-Dichloropropene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 UJ	0.14 U	0.11 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Trichlorofluoromethane (CFC-11)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.17 U	0.17 U	0.14 U	0.17 U	0.11 U	0.14 U	0.12 U	0.14 U	0.11 U
Vinyl chloride	mg/L	**3.6**[cdehi]	**1.8**[cdehi]	**0.59**[deh]	**1.3**[cdehi]	**1.6**[cdehi]	**0.97**[deh]	**0.98**[deh]	**1.6**[cdehi]	**1.2**[cdehi]
Xylenes (total)	mg/L	0.33 U	0.33 U	0.29 U	0.33 U	0.22 U	0.29 UJ	0.25 U	0.29 U	0.22 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*WG-17303-041310-CB-008*	*WG-17303-102510-DR-017*	*WG-17303-030806-NR-0955*	*WG-17303-062906-LA-011*	*WG-17303-100306-NRS-038*	*WG-17303-120606-EV-014*	*WG-17303-030807-DR-005*	*WG-17303-060807-DR-032*	*WG-17303-090607-NRS-014*
Sample Date:		*04/13/2010*	*10/25/2010*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/06/2006*	*03/08/2007*	*06/08/2007*	*09/06/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,1,2,2-Tetrachloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 UJ	5 U
1,1,2-Trichloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,1-Dichloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,1-Dichloroethene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.45 U	0.71 U	0.71 U	2.5 U	8.3 U	8.3 U	8.3 U	17 U	25 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	3.3 U	5 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,2-Dichlorobenzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,2-Dichloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	3.3 U	5 U
1,3-Dichlorobenzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	2.3 U	3.6 U	3.6 U	12 U	42 U	42 U	42 U	83 U	120 U
2-Hexanone	mg/L	4.5 U	7.1 U	7.1 U	25 U	83 U	83 U	83 U	170 UJ	250 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	4.5 U	7.1 U	7.1 U	25 U	83 U	83 U	83 U	170 UJ	250 U
Acetone	mg/L	2.3 U	3.6 U	3.6 U	12 U	1.4 J[h]	42 U	42 U	83 U	120 U
Benzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Bromodichloromethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Bromoform	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 UJ	1.7 U	1.7 U	3.3 U	5 U
Bromomethane (Methyl bromide)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Carbon disulfide	mg/L	0.45 U	0.71 U	0.71 U	2.5 UJ	8.3 U	8.3 U	8.3 U	17 U	25 U
Carbon tetrachloride	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Chlorobenzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Chloroform (Trichloromethane)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Chloromethane (Methyl chloride)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
cis-1,2-Dichloroethene	mg/L	2.9[deh]	3.4[deh]	4.5[deh]	35[dehj]	56[dehj]	42[dehj]	40[dehj]	110[dehij]	120[dehij]
cis-1,3-Dichloropropene	mg/L	0.091 U	0.14 U	0.14 U	0.5 UJ	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Cyclohexane	mg/L	0.091 U	0.14 U	0.14 U	0.5 UJ	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Dibromochloromethane	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.091 U	0.14 U	0.14 U	0.5 UJ	1.7 UJ	1.7 U	1.7 U	3.3 U	5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*WG-17303-041310-CB-008*	*WG-17303-102510-DR-017*	*WG-17303-030806-NR-0955*	*WG-17303-062906-LA-011*	*WG-17303-100306-NRS-038*	*WG-17303-120606-EV-014*	*WG-17303-030807-DR-005*	*WG-17303-060807-DR-032*	*WG-17303-090607-NRS-014*
Sample Date:		*04/13/2010*	*10/25/2010*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/06/2006*	*03/08/2007*	*06/08/2007*	*09/06/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.45 U	0.71 U	0.71 U	2.5 U	8.3 U	8.3 U	8.3 U	17 U	25 U
Methyl acetate	mg/L	0.91 U	1.4 U	1.4 U	5 U	17 U	17 U	17 U	33 U	50 U
Methyl cyclohexane	mg/L	0.091 U	0.14 U	0.14 U	0.5 UJ	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Methyl tert butyl ether (MTBE)	mg/L	0.45 U	0.71 U	0.71 U	2.5 U	8.3 U	8.3 U	8.3 U	17 U	25 U
Methylene chloride	mg/L	0.45 U	0.71 U	0.71 U	2.5 U	8.3 U	8.3 U	8.3 U	17 U	25 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Tetrachloroethene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 UJ	1.7 U	1.7 U	3.3 U	5 U
Toluene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
trans-1,2-Dichloroethene	mg/L	0.17 eh	0.15 eh	0.038 J	0.25 J eh	0.28 J eh	1.7 U	1.7 U	3.3 U	5 U
trans-1,3-Dichloropropene	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 UJ	1.7 U	1.7 U	3.3 U	5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.091 U	0.14 U	0.65 deh	3.3 deh	3 deh	3.6 dehj	4.9 dehj	6.5 dehj	4.1 J dehj
Trichlorofluoromethane (CFC-11)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.091 U	0.14 U	0.14 U	0.5 U	1.7 U	1.7 U	1.7 U	3.3 U	5 U
Vinyl chloride	mg/L	0.79 deh	1 deh	2.2 cdehi	7.1 cdehi	4 cdehi	4.3 cdehi	4.8 cdehi	11 cdehi	9.9 cdehi
Xylenes (total)	mg/L	0.18 U	0.29 U	0.29 U	1 U	3.3 U	3.3 U	3.3 U	6.7 U	10 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
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NLV - Hazardous substance is not likely to volatilize under most conditions
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*
Sample ID:		*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-041310-CB-005*	*WG-17303-102610-DR-019*	*WG-17303-030807-EV-006*	*WG-17303-060707-DR-031*
Sample Date:		*12/06/2007*	*03/25/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*04/13/2010*	*10/26/2010*	*03/08/2007*	*06/07/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,1,2,2-Tetrachloroethane	mg/L	2.5 U	2 U	3.3 U	5 UJ	2 U	2 U	2 U	0.62 U	1 U
1,1,2-Trichloroethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,1-Dichloroethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,1-Dichloroethene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	12 U	10 U	17 U	25 U	10 U	10 U	10 U	3.1 U	5 U
1,2,4-Trimethylbenzene	mg/L	2.5 U	-	-	-	-	-	-	-	1 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,2-Dichlorobenzene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,2-Dichloroethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,3,5-Trimethylbenzene	mg/L	2.5 U	-	-	-	-	-	-	-	1 U
1,3-Dichlorobenzene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	62 U	50 U	83 U	120 U	50 U	50 U	50 U	16 U	25 U
2-Hexanone	mg/L	120 U	100 U	170 U	250 U	100 U	100 U	100 U	31 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	120 U	100 U	170 U	250 U	100 U	100 U	100 U	31 U	50 UJ
Acetone	mg/L	62 U	50 U	83 U	120 U	50 U	50 U	50 U	16 U	25 U
Benzene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Bromodichloromethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Bromoform	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Bromomethane (Methyl bromide)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Carbon disulfide	mg/L	12 U	10 U	17 U	25 U	10 U	10 U	10 U	3.1 U	5 U
Carbon tetrachloride	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Chlorobenzene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	2.5 U	2 UJ	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Chloroform (Trichloromethane)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Chloromethane (Methyl chloride)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
cis-1,2-Dichloroethene	mg/L	**71**[dehj]	**64**[dehj]	**130**[dehij]	**99**[dehij]	**61**[dehj]	**54**[dehj]	**48**[dehj]	**19**[dehj]	**36**[dehj]
cis-1,3-Dichloropropene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Cyclohexane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Dibromochloromethane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	2.5 U	2 U	3.3 UJ	5 U	2 U	2 U	2 U	0.62 U	1 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*
Sample ID:		*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-041310-CB-005*	*WG-17303-102610-DR-019*	*WG-17303-030807-EV-006*	*WG-17303-060707-DR-031*
Sample Date:		*12/06/2007*	*03/25/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*04/13/2010*	*10/26/2010*	*03/08/2007*	*06/07/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	12 U	10 U	17 U	25 U	10 U	10 U	10 U	3.1 U	5 U
Methyl acetate	mg/L	25 U	20 U	33 U	50 U	20 U	20 U	20 U	6.2 U	10 UJ
Methyl cyclohexane	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Methyl tert butyl ether (MTBE)	mg/L	12 U	10 U	17 U	25 U	10 U	10 U	10 U	3.1 U	5 U
Methylene chloride	mg/L	12 U	10 U	17 U	25 U	10 U	10 U	0.82 J^{eh}	3.1 U	5 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Tetrachloroethene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Toluene	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
trans-1,2-Dichloroethene	mg/L	0.5 J^{eh}	0.47 J^{eh}	0.7 J^{eh}	5 U	0.52 J^{eh}	2 U	2 U	0.14 J^{eh}	0.19 J^{eh}
trans-1,3-Dichloropropene	mg/L	2.5 U	2 U	3.3 U	5 UJ	2 U	2 U	2 U	0.62 U	1 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.6 J^{deh}	1.9 J^{deh}	2.5 J^{deh}	1.4 J^{deh}	0.95 J^{deh}	0.6 J^{deh}	2 U	7.2^{dehj}	10^{dehj}
Trichlorofluoromethane (CFC-11)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Trifluorotrichloroethane (Freon 113)	mg/L	2.5 U	2 U	3.3 U	5 U	2 U	2 U	2 U	0.62 U	1 U
Vinyl chloride	mg/L	5.3^{cdehi}	6^{cdehi}	10^{cdehi}	6.5^{cdehi}	4.4^{cdehi}	4.1^{cdehi}	22^{cdefhij}	5.9^{cdehi}	5.1^{cdehi}
Xylenes (total)	mg/L	5 U	4 U	6.7 UJ	10 U	4 U	4 U	4 U	1.2 U	2 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-42*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-090507-EV-007*	*WG-17303-120407-DR-003*	*WG-17303-032408-DR-001*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*	*GW-17303-031303-BL-181*	*GW-17303-121004-DCR-666*	*GW-17303-031105-DR-694*
Sample Date:		*09/05/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/13/2003*	*12/10/2004*	*03/11/2005*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
1,1,1-Trichloroethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 UJ	0.83 U	0.001 U	0.056 U	0.05 U
1,1,2-Trichloroethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.023 eh	0.056 U	0.05 U
1,1-Dichloroethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,1-Dichloroethene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.19 deh	0.056 U	0.017 J eh
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	0.001 U	-	-
1,2,4-Trichlorobenzene	mg/L	3.6 U	10 U	5 U	4.2 U	12 U	4.2 U	0.001 U	0.28 U	0.25 U
1,2,4-Trimethylbenzene	mg/L	0.71 U	2 U	-	-	-	-	0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	-	0.056 U	0.05 U
1,2-Dichlorobenzene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,2-Dichloroethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.11 eh	0.056 U	0.05 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,3,5-Trimethylbenzene	mg/L	0.71 U	2 U	-	-	-	-	0.001 U	-	-
1,3-Dichlorobenzene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	18 U	50 U	25 U	21 U	62 U	21 U	0.025 U	1.4 U	1.3 U
2-Hexanone	mg/L	36 U	100 U	50 U	42 U	120 U	42 U	0.05 U	2.8 U	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	36 U	100 U	50 U	42 U	120 U	42 U	0.05 U	2.8 U	2.5 U
Acetone	mg/L	18 U	50 U	25 U	21 U	62 U	21 U	0.025 U	1.4 U	1.3 U
Benzene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.087 eh	0.056 U	0.05 U
Bromodichloromethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Bromoform	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Bromomethane (Methyl bromide)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Carbon disulfide	mg/L	3.6 U	10 U	5 U	4.2 U	12 U	4.2 U	0.005 U	0.28 U	0.25 U
Carbon tetrachloride	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Chlorobenzene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
Chloroethane	mg/L	0.71 U	2 U	1 UJ	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Chloroform (Trichloromethane)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.009	0.056 U	0.05 U
Chloromethane (Methyl chloride)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
cis-1,2-Dichloroethene	mg/L	9 deh	13 dehj	13 dehj	30 dehj	13 dehj	28 dehj	86 dehj	2.1 deh	9.8 deh
cis-1,3-Dichloropropene	mg/L	0.71 U	2 U	1 U	0.83 UJ	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Cyclohexane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	-	0.056 U	0.05 U
Dibromochloromethane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Dibromomethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Ethyl ether	mg/L	-	-	-	-	-	-	0.02 U	-	-
Ethylbenzene	mg/L	0.71 U	2 U	1 U	0.83 UJ	2.5 U	0.83 U	0.018	0.056 U	0.05 U
Iodomethane	mg/L	-	-	-	-	-	-	0.01 U	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-42*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-090507-EV-007*	*WG-17303-120407-DR-003*	*WG-17303-032408-DR-001*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*	*GW-17303-031303-BL-181*	*GW-17303-121004-DCR-666*	*GW-17303-031105-DR-694*
Sample Date:		*09/05/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/13/2003*	*12/10/2004*	*03/11/2005*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	3.6 U	10 U	5 U	4.2 U	12 U	4.2 U	0.005 U	0.28 U	0.25 U
Methyl acetate	mg/L	7.1 U	20 U	10 U	8.3 U	25 U	8.3 U	-	0.56 U	0.5 U
Methyl cyclohexane	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	-	0.056 U	0.05 U
Methyl tert butyl ether (MTBE)	mg/L	3.6 U	10 U	5 U	4.2 U	12 U	4.2 U	-	0.28 U	0.25 U
Methylene chloride	mg/L	3.6 U	1.1 J[eh]	5 U	4.2 U	12 U	4.2 U	0.005 U	0.28 U	0.25 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	0.1 U
Naphthalene	mg/L	-	-	-	-	-	-	0.005 U	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	0.005 U	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	0.05 U
Styrene	mg/L	0.71 U	2 U	1 U	0.83 UJ	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Tetrachloroethene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.001 U	0.056 U	0.05 U
Toluene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	0.15	0.056 U	0.05 U
trans-1,2-Dichloroethene	mg/L	0.71 U	2 U	1 U	0.17 J[eh]	2.5 U	0.83 U	1.6[deh]	0.077	0.18[eh]
trans-1,3-Dichloropropene	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 UJ	0.83 U	0.001 U	0.056 U	0.05 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	0.05 U	-	-
Trichloroethene	mg/L	0.73[deh]	1.1 J[deh]	3.3[deh]	6.4[dehj]	2.5 U	16[dehij]	5.7[dehj]	0.41[deh]	0.63[deh]
Trichlorofluoromethane (CFC-11)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	-	0.056 U	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.71 U	2 U	1 U	0.83 U	2.5 U	0.83 U	-	0.056 U	0.05 U
Vinyl chloride	mg/L	26[cdefhij]	58[bcdefhij]	24[cdefhij]	17[cdefhi]	52[bcdefhij]	21[cdefhij]	14[cdefhi]	1.9[cdehi]	5.1[cdehi]
Xylenes (total)	mg/L	1.4 U	4 U	2 U	1.7 UJ	5 U	1.7 U	0.186[d]	0.11 U	0.15 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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R - Rejected value
U - Not present at or above the associated value
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-062305-DR-0818*	*WG-17303-100605-AB-0893*	*WG-17303-121405-NR-0913*	*WG-17303-030806-NR-0957*	*WG-17303-070606-EV-028*	*WG-17303-100306-NRS-045*	*WG-17303-120506-DK-003*	*WG-17303-030807-DR-014*	*WG-17303-060707-DR-026*
Sample Date:		*06/23/2005*	*10/06/2005*	*12/14/2005*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*	*06/07/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	1.9 U	21 U	8.3 U	12 U	25 U	25 U	12 U	12 U	12 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	2.5 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichlorobenzene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	2.5 U
1,3-Dichlorobenzene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	9.6 U	100 U	42 U	62 U	120 U	120 U	62 U	62 U	62 U
2-Hexanone	mg/L	19 U	210 U	83 U	120 U	250 U	250 U	120 U	120 U	120 UJ
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	19 U	210 U	83 U	120 U	250 UJ	250 UJ	120 U	120 U	120 UJ
Acetone	mg/L	9.6 U	20 J[deh]	42 U	62 U	120 U	120 U	62 U	62 U	62 U
Benzene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 UJ	2.5 U	2.5 U	2.5 U
Bromoform	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Bromomethane (Methyl bromide)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide	mg/L	1.9 U	21 U	8.3 U	12 U	25 UJ	25 U	12 U	12 U	12 U
Carbon tetrachloride	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Chlorobenzene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform (Trichloromethane)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Chloromethane (Methyl chloride)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	mg/L	6.8[deh]	73[dehj]	21[dehj]	65[dehj]	140[dehij]	140[dehij]	84[dehj]	57[dehj]	87[dehj]
cis-1,3-Dichloropropene	mg/L	0.38 U	4.2 UJ	1.7 U	2.5 U	5 UJ	5 UJ	2.5 U	2.5 U	2.5 U
Cyclohexane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 UJ	5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 UJ	5 U	2.5 U	2.5 U	2.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.17 J[deh]	4.2 U	1.7 U	2.5 U	5 U	5 UJ	2.5 U	2.5 U	2.5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-062305-DR-0818*	*WG-17303-100605-AB-0893*	*WG-17303-121405-NR-0913*	*WG-17303-030806-NR-0957*	*WG-17303-070606-EV-028*	*WG-17303-100306-NRS-045*	*WG-17303-120506-DK-003*	*WG-17303-030807-DR-014*	*WG-17303-060707-DR-026*
Sample Date:		*06/23/2005*	*10/06/2005*	*12/14/2005*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*	*06/07/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	1.9 U	21 U	8.3 U	12 U	25 U	25 U	12 U	12 U	12 U
Methyl acetate	mg/L	3.8 U	42 UJ	17 U	25 U	50 U	50 U	25 U	25 U	25 UJ
Methyl cyclohexane	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 UJ	5 U	2.5 U	2.5 U	2.5 U
Methyl tert butyl ether (MTBE)	mg/L	1.9 U	21 U	8.3 U	12 U	25 UJ	25 U	12 U	12 U	12 U
Methylene chloride	mg/L	1.9 U	21 U	8.3 U	12 U	25 U	25 U	12 U	12 U	12 U
m-Xylene	mg/L	0.28 J	8.3 U	3.3 U	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.12 J	4.2 U	1.7 U	-	-	-	-	-	-
Styrene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 UJ	2.5 U	2.5 U	2.5 U
Toluene	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	mg/L	**0.22 J[eh]**	**0.8 J[eh]**	**0.19 J[eh]**	**0.96 J[eh]**	**1.8 J[deh]**	**1.4 J[eh]**	**0.99 J[eh]**	**0.6 J[eh]**	**0.77 J[eh]**
trans-1,3-Dichloropropene	mg/L	0.38 U	4.2 UJ	1.7 U	2.5 U	5 UJ	5 UJ	2.5 U	2.5 U	2.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	**0.63[deh]**	**1.6 J[deh]**	1.7 U	**11[dehj]**	**1.8 J[deh]**	5 U	**1.7 J[deh]**	**4.3[dehj]**	**1.8 J[deh]**
Trichlorofluoromethane (CFC-11)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.38 U	4.2 U	1.7 U	2.5 U	5 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	mg/L	**8.5[cdehi]**	**18[cdefhij]**	1.7 U	**6[cdehi]**	**26[cdefhij]**	**19[cdefhij]**	**16[cdefhi]**	**17[cdefhi]**	**18[cdefhij]**
Xylenes (total)	mg/L	**0.43 J[deh]**	13 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*WG-17303-090507-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*GW-17303-112502-MM-140*	*WG-17303-062205-DR-0813*	*WG-17303-030807-DR-007*
Sample Date:		*09/05/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*11/25/2002*	*06/22/2005*	*03/08/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
1,1,1-Trichloroethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,1,2,2-Tetrachloroethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 UJ	6.2 U	0.001 U	0.33 U	0.62 U
1,1,2-Trichloroethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,1-Dichloroethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,1-Dichloroethene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	0.001 U	-	-
1,2,4-Trichlorobenzene	mg/L	25 U	10 U	10 U	17 U	36 U	31 U	0.001 U	1.7 U	3.1 U
1,2,4-Trimethylbenzene	mg/L	5 U	2 U	-	-	-	-	0.001 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	-	0.33 U	0.62 U
1,2-Dichlorobenzene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,2-Dichloroethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,3,5-Trimethylbenzene	mg/L	5 U	2 U	-	-	-	-	0.001 U	-	-
1,3-Dichlorobenzene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	120 U	50 U	50 U	83 U	180 U	160 U	0.025 U	8.3 U	16 U
2-Hexanone	mg/L	250 U	100 U	100 U	170 U	360 U	310 U	0.05 U	17 U	31 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	250 U	100 U	100 U	170 U	360 U	310 U	0.05 U	17 UJ	31 U
Acetone	mg/L	120 U	50 U	50 U	83 U	180 U	160 U	0.025 U	R	16 U
Benzene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Bromodichloromethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Bromoform	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Bromomethane (Methyl bromide)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Carbon disulfide	mg/L	25 U	10 U	10 U	17 U	36 U	31 U	0.005 U	1.7 U	3.1 U
Carbon tetrachloride	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Chlorobenzene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
Chloroethane	mg/L	5 U	2 U	2 UJ	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Chloroform (Trichloromethane)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Chloromethane (Methyl chloride)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
cis-1,2-Dichloroethene	mg/L	**120**[dehij]	**62**[dehj]	**71**[dehj]	**70**[dehj]	**160**[dehij]	**170**[dehij]	**0.48**[eh]	**2.2**[deh]	**16**[dehj]
cis-1,3-Dichloropropene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Cyclohexane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	-	0.33 U	0.62 U
Dibromochloromethane	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Dibromomethane	mg/L	-	-	-	-	-	-	0.001 U	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 UJ	0.62 U
Ethyl ether	mg/L	-	-	-	-	-	-	0.02 U	-	-
Ethylbenzene	mg/L	5 U	2 U	2 U	3.3 UJ	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Iodomethane	mg/L	-	-	-	-	-	-	0.01 U	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*WG-17303-090507-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*GW-17303-112502-MM-140*	*WG-17303-062205-DR-0813*	*WG-17303-030807-DR-007*
Sample Date:		*09/05/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*11/25/2002*	*06/22/2005*	*03/08/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	25 U	10 U	10 U	17 U	36 U	31 U	0.005 U	1.7 U	3.1 U
Methyl acetate	mg/L	50 U	20 U	20 U	33 U	71 U	62 U	-	3.3 U	6.2 U
Methyl cyclohexane	mg/L	5 U	2 U	2 U	3.3 UJ	7.1 U	6.2 U	-	0.33 U	0.62 U
Methyl tert butyl ether (MTBE)	mg/L	25 U	10 U	10 U	17 U	36 U	31 U	-	1.7 U	3.1 U
Methylene chloride	mg/L	25 U	10 U	10 U	17 U	36 U	31 U	0.005 U	1.7 U	3.1 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	0.005 U	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	0.005 U	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Tetrachloroethene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
Toluene	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	0.001 U	0.33 U	0.62 U
trans-1,2-Dichloroethene	mg/L	**1.1 J^{eh}**	**0.7 J^{eh}**	**0.77 J^{eh}**	**0.78 J^{eh}**	7.1 U	**1.3 J^{eh}**	0.001 U	0.058 J	**0.21 J^{eh}**
trans-1,3-Dichloropropene	mg/L	5 U	2 U	2 U	3.3 U	7.1 UJ	6.2 U	0.001 U	0.33 U	0.62 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	0.05 U	-	-
Trichloroethene	mg/L	**1.7 J^{deh}**	**0.93 J^{deh}**	**3.6^{dehj}**	3.3 U	7.1 U	**18^{dehij}**	**0.56 J^{deh}**	**9.9^{dehj}**	**19^{dehij}**
Trichlorofluoromethane (CFC-11)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	-	0.33 U	0.62 U
Trifluorotrichloroethane (Freon 113)	mg/L	5 U	2 U	2 U	3.3 U	7.1 U	6.2 U	-	0.33 U	0.62 U
Vinyl chloride	mg/L	**35^{bcdefhij}**	**26^{cdefhij}**	**31^{cdefhij}**	**95 J^{bcdefhij}**	**51^{bcdefhij}**	**11^{cdehi}**	**0.032^{deh}**	**0.25 J^{deh}**	**0.62^{deh}**
Xylenes (total)	mg/L	10 U	4 U	4 U	6.7 UJ	14 U	12 U	0.003 U	0.67 U	1.2 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*	*WG-17303-032508-DR-006*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*GW-17303-JH-121401-103*	*GW-17303-011402-BN-114*
Sample Date:		*06/07/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*12/14/2001*	*01/14/2002*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
1,1,1-Trichloroethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 UJ	1.2 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.02[eh]	0.002
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	4.2 U	10 U	25 U	5 U	8.3 U	36 U	6.2 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.83 U	2 U	5 U	-	-	-	-	0.01	0.006
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	-	-
1,2-Dichlorobenzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.016[eh]	0.004
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.83 U	2 U	5 U	-	-	-	-	0.003	0.002
1,3-Dichlorobenzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	21 U	50 U	120 U	25 U	42 U	180 U	31 U	0.05 U	0.05 U
2-Hexanone	mg/L	42 U	100 U	250 U	50 U	83 U	360 U	62 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	42 UJ	100 U	250 U	50 U	83 U	360 U	62 U	0.05 U	0.05 U
Acetone	mg/L	21 U	50 U	120 U	25 U	42 U	180 U	31 U	0.1 U	0.1 U
Benzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.02[eh]	0.005
Bromodichloromethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Bromoform	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Carbon disulfide	mg/L	4.2 U	10 U	25 U	5 U	8.3 U	36 U	6.2 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Chloroethane	mg/L	0.83 U	2 U	5 U	1 UJ	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.005	0.003
Chloromethane (Methyl chloride)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	30[dehj]	56[dehj]	130[dehij]	32[dehj]	60[dehj]	160[dehij]	33[dehj]	16[dehj]	1.2[deh]
cis-1,3-Dichloropropene	mg/L	0.83 U	2 U	5 U	1 U	1.7 UJ	7.1 U	1.2 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	-	-
Dibromochloromethane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	0.02 U	0.02 U
Ethylbenzene	mg/L	0.83 U	2 U	5 U	1 U	1.7 UJ	7.1 U	1.2 U	0.055[d]	0.023[d]
Iodomethane	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*	*WG-17303-032508-DR-006*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*GW-17303-JH-121401-103*	*GW-17303-011402-BN-114*
Sample Date:		*06/07/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*12/14/2001*	*01/14/2002*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	4.2 U	10 U	25 U	5 U	8.3 U	36 U	6.2 U	0.002	0.001 U
Methyl acetate	mg/L	8.3 UJ	20 U	50 U	10 U	17 U	71 U	12 U	-	-
Methyl cyclohexane	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	-	-
Methyl tert butyl ether (MTBE)	mg/L	4.2 U	10 U	25 U	5 U	8.3 U	36 U	6.2 U	-	-
Methylene chloride	mg/L	4.2 U	10 U	25 U	5 U	8.3 U	36 U	6.2 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.83 U	2 U	5 U	1 U	1.7 UJ	7.1 U	1.2 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.001 U	0.001 U
Toluene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	0.095	0.025
trans-1,2-Dichloroethene	mg/L	**0.31 J[eh]**	**0.61 J[eh]**	**0.99 J[eh]**	**0.39 J[eh]**	**0.46 J[eh]**	7.1 U	**0.37 J[eh]**	0.062	0.05
trans-1,3-Dichloropropene	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 UJ	1.2 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	0.002 U	0.002 U
Trichloroethene	mg/L	**16[dehij]**	**22[dehij]**	**7.3[dehj]**	**15[dehj]**	**20[dehij]**	**9.2[dehj]**	**11[dehj]**	**1.2[deh]**	**0.38[deh]**
Trichlorofluoromethane (CFC-11)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.83 U	2 U	5 U	1 U	1.7 U	7.1 U	1.2 U	-	-
Vinyl chloride	mg/L	**2[cdehi]**	**1.5 J[cdehi]**	**19[cdefhij]**	**2.3[cdehi]**	**6.3[cdehi]**	**11[cdehi]**	**3.1[cdehi]**	**2.1[cdehi]**	**1.1[cdeh]**
Xylenes (total)	mg/L	1.7 U	4 U	10 U	2 U	3.3 UJ	14 U	2.5 U	**0.35[deh]**	**0.17[d]**

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*GW-17303-011402-BN-115*	*GW-17303-031402-TJ-120*	*GW-17303-031402-TJ-121*	*GW-17303-050602-MM-127*	*GW-072202-MM-133*	*GW-17303-112502-MM-143*	*17303-062603-HH-IW46-203*	*17303-130803-HS-214*	*17303-130803-HS-215*
Sample Date:		*01/14/2002*	*03/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*08/13/2003*	*08/13/2003*
Sample Type:		*Duplicate*		*Duplicate*						*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.009[eh]	0.008[eh]	0.004	0.001 U	0.002	0.003	0.002	0.002
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.002	0.006	0.006	0.001 UJ	0.001 U	0.018[eh]	0.001 UJ	0.007	0.007
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.005	0.016	0.001 U	0.001 U	0.001 U	0.001	0.001 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.004	0.016[eh]	0.016[eh]	0.007[eh]	0.009[eh]	0.012[eh]	0.009[eh]	0.003	0.003
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	5.1	4.71
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.002	0.006	0.006	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.1 U	0.1 U	0.1 U	0.25	0.82[h]	0.025 U	0.17	0.025 U	0.025 U
Benzene	mg/L	0.005	0.022[eh]	0.021[eh]	0.01[eh]	0.008[eh]	0.015[eh]	0.016[eh]	0.011[eh]	0.011[eh]
Bromodichloromethane	mg/L	0.001 U	0.001	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.003	0.016	0.016	0.007	0.004	0.005	0.007	0.003	0.003
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	1.4[deh]	13[dehj]	11[deh]	0.001 U	0.001 U	13[dehj]	0.001 U	4.9[deh]	4.5[deh]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	0.007	0.007
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-
Ethylbenzene	mg/L	0.021[d]	0.061[d]	0.061[d]	0.034[d]	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*GW-17303-011402-BN-115*	*GW-17303-031402-TJ-120*	*GW-17303-031402-TJ-121*	*GW-17303-050602-MM-127*	*GW-072202-MM-133*	*GW-17303-112502-MM-143*	*17303-062603-HH-IW46-203*	*17303-130803-HS-214*	*17303-130803-HS-215*
Sample Date:		*01/14/2002*	*03/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*08/13/2003*	*08/13/2003*
Sample Type:		*Duplicate*		*Duplicate*						*Duplicate*
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.001 U	0.003	0.003	0.002	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	0.01 U	0.01 U
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	0.014	0.014
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	0.005	0.006	0.005 U	0.005 U	0.005 U	0.005 U	-	-
N-Propylbenzene	mg/L	0.001 U	0.002	0.002	0.001	0.001 U	0.005 U	0.005 U	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.025	0.088	0.083	0.044 J	0.004	0.04	0.003	0.019	0.019
trans-1,2-Dichloroethene	mg/L	0.051	**0.75**[eh]	**0.66**[eh]	0.001 U	0.001 U	**0.36 J**[eh]	0.001 U	**0.2**[eh]	**0.21**[eh]
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	-	-
Trichloroethene	mg/L	**0.38**[deh]	**0.35**[deh]	**0.36**[deh]	0.001 UJ	0.001 U	**0.22 J**[deh]	0.001 UJ	**0.16**[eh]	**0.15**[eh]
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Vinyl chloride	mg/L	**1.2**[cdehi]	**1.6**[cdehi]	**1.4**[cdehi]	0.001 U	0.001 U	**2.8**[cdehi]	0.001 U	**1.7**[cdehi]	**1.6**[cdehi]
Xylenes (total)	mg/L	**0.158**[d]	**0.44**[deh]	**0.43**[deh]	**0.104**[d]	0.003 U	**0.049**[d]	0.003 U	**0.079**[d]	**0.079**[d]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*GW-17303-120303-DCR-266*	*GW-17303-040104-DCR-307*	*GW-17303-063004-DR-371*	*GW-17303-092204-MM-637*	*GW-17303-120804-DCR-658*	*GW-17303-031005-DR-687*	*WG-17303-062305-DR-0821*	*WG-17303-100505-AB-0889*	*WG-17303-100505-AB-0890*
Sample Date:		*12/03/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*10/05/2005*
Sample Type:										*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,1,2,2-Tetrachloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,1,2-Trichloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,1-Dichloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,1-Dichloroethene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.00013 J	0.83 U	0.71 U	0.71 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.83 U	2.1 U	0.62 U	1.7 U	8.3 U	0.005 U	4.2 U	3.6 U	3.6 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,2-Dichlorobenzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,2-Dichloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	4.2 U	10 U	3.1 U	8.3 U	42 U	0.025 U	21 U	18 U	18 U
2-Hexanone	mg/L	8.3 U	21 U	6.2 U	17 U	83 U	0.05 U	42 U	36 U	36 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	8.3 U	21 U	6.2 U	17 U	83 U	0.05 U	42 U	36 U	36 U
Acetone	mg/L	4.2 U	10 U	3.1 U	8.3 U	42 U	0.025 U	21 U	3.5 J[deh]	3.6 J[deh]
Benzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Bromodichloromethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Bromoform	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Bromomethane (Methyl bromide)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Carbon disulfide	mg/L	0.83 U	2.1 U	0.62 U	1.7 U	8.3 U	0.005 U	4.2 U	3.6 U	3.6 U
Carbon tetrachloride	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Chlorobenzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Chloroform (Trichloromethane)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Chloromethane (Methyl chloride)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
cis-1,2-Dichloroethene	mg/L	5.5[deh]	10[deh]	2.9[deh]	8.8[deh]	59[dehj]	8.5[deh]	16[dehj]	4.6[deh]	4.8[deh]
cis-1,3-Dichloropropene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 UJ	0.71 UJ
Cyclohexane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Dibromochloromethane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.41 J[dehj]	0.71 U	0.71 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*GW-17303-120303-DCR-266*	*GW-17303-040104-DCR-307*	*GW-17303-063004-DR-371*	*GW-17303-092204-MM-637*	*GW-17303-120804-DCR-658*	*GW-17303-031005-DR-687*	*WG-17303-062305-DR-0821*	*WG-17303-100505-AB-0889*	*WG-17303-100505-AB-0890*
Sample Date:		*12/03/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*10/05/2005*
Sample Type:										*Duplicate*
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.83 U	2.1 U	0.62 U	1.7 U	8.3 U	0.005 U	4.2 U	3.6 U	3.6 U
Methyl acetate	mg/L	1.7 U	4.2 U	1.2 U	3.3 U	17 U	0.01 U	8.3 U	7.1 UJ	7.1 UJ
Methyl cyclohexane	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Methyl tert butyl ether (MTBE)	mg/L	0.83 U	2.1 U	0.62 U	1.7 U	8.3 U	0.005 U	4.2 U	3.6 U	3.6 U
Methylene chloride	mg/L	0.83 U	2.1 U	0.62 U	1.7 U	8.3 U	0.005 U	4.2 U	0.11 J[eh]	3.6 U
m-Xylene	mg/L	-	-	-	-	-	0.002 U	0.67 J[eh]	1.4 U	1.4 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	0.00019 J	0.3 J[eh]	0.71 U	0.71 U
Styrene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Tetrachloroethene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Toluene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	0.37 J[d]	0.001 U	0.12 J	0.71 U	0.71 U
trans-1,2-Dichloroethene	mg/L	0.21[eh]	0.26 J[eh]	0.098 J	0.22 J[eh]	0.83 J[eh]	0.0016	0.21 J[eh]	0.15 J[eh]	0.16 J[eh]
trans-1,3-Dichloropropene	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 UJ	0.71 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.22[deh]	0.15 J[eh]	0.085 J[eh]	0.1 J[eh]	1.1 J[deh]	0.00058 J	0.094 J[eh]	0.081 J[eh]	0.12 J[eh]
Trichlorofluoromethane (CFC-11)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.17 U	0.42 U	0.12 U	0.33 U	1.7 U	0.001 U	0.83 U	0.71 U	0.71 U
Vinyl chloride	mg/L	3.5[cdehi]	3.4[cdehi]	3.1[cdehi]	3[cdehi]	5.8[cdehi]	5.5[cdehi]	9[cdehi]	11[cdehi]	11[cdehi]
Xylenes (total)	mg/L	0.33 U	0.83 U	0.25 U	0.67 U	3.3 U	0.00019 J	1.1 J[dehj]	2.1 U	2.1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-030806-NR-0956*	*WG-17303-063006-EV-018*	*WG-17303-100506-NRS-062*	*WG-17303-120506-DK-008*	*WG-17303-030807-NRS-010*	*WG-17303-060507-EV-006*	*WG-17303-090507-DR-008*	*WG-17303-120407-DR-002*	*WG-17303-032508-CB-011*
Sample Date:		*03/08/2006*	*06/30/2006*	*10/05/2006*	*12/05/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,1,2,2-Tetrachloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 UJ	0.14 U	0.25 U	0.33 U
1,1,2-Trichloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 UJ	0.14 U	0.25 U	0.33 U
1,1-Dichloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,1-Dichloroethene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	1.2 U	2.5 U	1.7 U	0.83 U	0.077 U	1.7 U	0.71 U	1.2 U	1.7 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	0.33 U	0.14 U	0.25 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,2-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,2-Dichloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	0.33 U	0.14 U	0.25 U	-
1,3-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	6.2 U	12 U	8.3 U	4.2 U	0.38 U	8.3 UJ	3.6 U	6.2 U	8.3 U
2-Hexanone	mg/L	12 U	25 UJ	17 U	8.3 U	0.77 U	17 UJ	7.1 U	12 U	17 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	12 U	25 UJ	17 U	8.3 U	0.77 U	17 UJ	7.1 U	12 U	17 U
Acetone	mg/L	6.2 U	12 U	8.3 U	4.2 U	0.38 U	8.3 U	3.6 U	6.2 U	8.3 U
Benzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Bromodichloromethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Bromoform	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Bromomethane (Methyl bromide)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Carbon disulfide	mg/L	1.2 U	2.5 U	1.7 U	0.83 U	0.077 U	1.7 U	0.71 U	1.2 U	1.7 U
Carbon tetrachloride	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Chlorobenzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 UJ
Chloroform (Trichloromethane)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Chloromethane (Methyl chloride)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
cis-1,2-Dichloroethene	mg/L	**5.4^{deh}**	**16 J^{dehj}**	**10 J^{deh}**	**5.9^{deh}**	**0.42^{eh}**	**9.5^{deh}**	**3.7^{deh}**	**8.5^{deh}**	**7.7^{deh}**
cis-1,3-Dichloropropene	mg/L	0.25 U	0.5 UJ	0.33 UJ	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Cyclohexane	mg/L	0.25 U	0.5 UJ	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Dibromochloromethane	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.25 U	0.5 UJ	0.33 U	0.17 U	0.015 U	0.33 UJ	0.14 U	0.25 U	0.33 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-030806-NR-0956*	*WG-17303-063006-EV-018*	*WG-17303-100506-NRS-062*	*WG-17303-120506-DK-008*	*WG-17303-030807-NRS-010*	*WG-17303-060507-EV-006*	*WG-17303-090507-DR-008*	*WG-17303-120407-DR-002*	*WG-17303-032508-CB-011*
Sample Date:		*03/08/2006*	*06/30/2006*	*10/05/2006*	*12/05/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	1.2 U	2.5 U	1.7 U	0.83 U	0.077 U	1.7 U	0.71 U	1.2 U	1.7 U
Methyl acetate	mg/L	2.5 U	5 U	3.3 U	1.7 U	0.15 U	3.3 UJ	1.4 U	2.5 U	3.3 U
Methyl cyclohexane	mg/L	0.25 U	0.5 UJ	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Methyl tert butyl ether (MTBE)	mg/L	1.2 U	2.5 U	1.7 U	0.83 U	0.077 U	1.7 U	0.71 U	1.2 U	1.7 U
Methylene chloride	mg/L	1.2 U	2.5 U	1.7 U	0.83 U	0.077 U	1.7 U	0.71 U	1.2 U	0.11 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.25 U	0.5 UJ	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Tetrachloroethene	mg/L	0.25 U	0.5 U	0.33 UJ	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Toluene	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
trans-1,2-Dichloroethene	mg/L	0.24 J[eh]	0.23 J[eh]	0.28 J[eh]	0.23[eh]	0.02	0.15 J[eh]	0.16[eh]	0.14 J[eh]	0.18 J[eh]
trans-1,3-Dichloropropene	mg/L	0.25 U	0.5 UJ	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.081 J[eh]	0.5 U	0.33 U	0.14 J[eh]	0.0062 J[eh]	0.33 U	0.14 U	0.25 U	0.096 J[eh]
Trichlorofluoromethane (CFC-11)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.25 U	0.5 U	0.33 U	0.17 U	0.015 U	0.33 U	0.14 U	0.25 U	0.33 U
Vinyl chloride	mg/L	7.2[cdehi]	6.2 J[cdehi]	6.1 J[cdehi]	2.4[cdehi]	0.21[deh]	9.1 J[cdehi]	2.7[cdehi]	4.5[cdehi]	6.8[cdehi]
Xylenes (total)	mg/L	0.5 U	1 U	0.67 U	0.33 U	0.031 U	0.67 U	0.29 U	0.5 U	0.67 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*
Sample ID:		*GW-17303-JH-121401-104*	*GW-17303-JH-121401-105*	*GW-17303-011402-BN-116*	*GW-17303-031402-TJ-122*	*GW-17303-050602-MM-128*	*GW-072202-MM-134*	*GW-17303-112502-MM-142*	*17303-062603-HH-IW49-201*	*17303-062603-HH-IW49-202*
Sample Date:		*12/14/2001*	*12/14/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*06/26/2003*
Sample Type:			*Duplicate*							*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.002	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	0.001 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	0.025 U	0.072	0.025 U
Benzene	mg/L	0.005	0.005	0.003	0.003	0.002	0.001	0.001 U	0.0021	0.0022
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001	0.002	0.002	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.01	0.009	0.01	0.016	0.011	0.004	0.002	0.0027	0.0029
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	**2.1**[deh]	**2.3**[deh]	**0.31**[eh]	**0.7**[deh]	**0.36**[eh]	**0.18**[eh]	**0.57**[eh]	**0.9**[deh]	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.003	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Ethylbenzene	mg/L	0.001 U	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*
Sample ID:		*GW-17303-JH-121401-104*	*GW-17303-JH-121401-105*	*GW-17303-011402-BN-116*	*GW-17303-031402-TJ-122*	*GW-17303-050602-MM-128*	*GW-072202-MM-134*	*GW-17303-112502-MM-142*	*17303-062603-HH-IW49-201*	*17303-062603-HH-IW49-202*
Sample Date:		*12/14/2001*	*12/14/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*06/26/2003*
Sample Type:			*Duplicate*							*Duplicate*
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
N-Propylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.004	0.004	0.001	0.001	0.001	0.001 U	0.001	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.078	0.069	0.012	0.05 U	0.01	0.045	0.027	0.02 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	0.05 U
Trichloroethene	mg/L	**10^{dehj}**	**13^{dehj}**	**8.4^{dehj}**	**8.3^{dehj}**	**5.8^{dehj}**	**1.7^{deh}**	**1.4^{deh}**	**1.6^{deh}**	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	**0.087 J^{deh}**	**0.096 J^{deh}**	**0.019^{deh}**	**0.11^{deh}**	**0.019^{deh}**	**0.04^{deh}**	**0.086^{deh}**	**0.033^{deh}**	0.001 U
Xylenes (total)	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-55*	*IW-55*	*IW-55*	*IW-55*
Sample ID:		*17303-130803-HS-213*	*GW-17303-120303-DCR-265*	*GW-17303-040104-DCR-313*	*GW-17303-063004-DR-372*	*GW-17303-092304-DCR-643*	*WG-17303-031507-NRS-038*	*WG-17303-060707-EV-030*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*
Sample Date:		*08/13/2003*	*12/03/2003*	*04/01/2004*	*06/30/2004*	*09/23/2004*	*03/15/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,1-Dichloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,1-Dichloroethene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.011 J[eh]	0.012 J[eh]	0.04 U	0.018 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.42 U	0.083 U	0.42 U	0.25 U	0.17 U	0.25 U	0.2 U	0.091 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	0.028 J[d]	0.039 J[d]	0.03[d]
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,2-Dichloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,2-Dichloroethene (total)	mg/L	0.62	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	0.01 J	0.013 J	0.011 J
1,3-Dichlorobenzene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
1,3-Dichloropropene	mg/L	0.005 U	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	2.1 U	0.42 U	2.1 U	1.2 U	0.83 U	1.2 U	1 U	0.45 U
2-Hexanone	mg/L	0.05 U	4.2 U	0.01 J	4.2 U	2.5 U	1.7 U	2.5 U	2 U	0.91 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	4.2 U	0.83 U	4.2 U	2.5 U	1.7 U	2.5 UJ	2 U	0.91 U
Acetone	mg/L	0.025 U	2.1 U	0.42 U	2.1 U	1.2 U	0.83 U	1.2 U	1 U	0.45 U
Benzene	mg/L	0.001	0.083 U	0.092[eh]	0.058 J[eh]	0.052 U	0.033 U	0.05 U	0.04 U	0.018 U
Bromodichloromethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Bromoform	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Carbon disulfide	mg/L	0.005 U	0.42 U	0.083 U	0.42 U	0.25 U	0.17 U	0.25 U	0.2 U	0.091 U
Carbon tetrachloride	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Chlorobenzene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
cis-1,2-Dichloroethene	mg/L	0.59[eh]	1.1[deh]	0.65[deh]	0.85[deh]	0.32[eh]	1.1[deh]	1.7[deh]	1.1[deh]	0.52[eh]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Cyclohexane	mg/L	0.001 U	0.083 U	0.012 J	0.083 U	0.05 U	0.006 J	0.05 U	0.04 U	0.0031 J
Dibromochloromethane	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.083 U	0.094[deh]	0.055 J[d]	0.032 J[d]	0.033 U	0.05 U	0.04 U	0.018 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-55*	*IW-55*	*IW-55*	*IW-55*
Sample ID:		*17303-130803-HS-213*	*GW-17303-120303-DCR-265*	*GW-17303-040104-DCR-313*	*GW-17303-063004-DR-372*	*GW-17303-092304-DCR-643*	*WG-17303-031507-NRS-038*	*WG-17303-060707-EV-030*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*
Sample Date:		*08/13/2003*	*12/03/2003*	*04/01/2004*	*06/30/2004*	*09/23/2004*	*03/15/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.005 U	0.42 U	0.0099 J	0.42 U	0.25 U	0.0057 J	0.25 U	0.2 U	0.0037 J
Methyl acetate	mg/L	0.01 U	0.83 U	0.17 U	0.83 U	0.5 U	0.33 U	0.5 UJ	0.4 U	0.18 U
Methyl cyclohexane	mg/L	0.001 U	0.083 U	0.023	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.0098 J
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.42 U	0.083 U	0.42 U	0.25 U	0.17 U	0.25 U	0.2 U	0.091 U
Methylene chloride	mg/L	0.005 U	0.42 U	0.083 U	0.42 U	0.25 U	**0.011 J[eh]**	0.25 U	0.2 U	**0.0083 J[eh]**
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Tetrachloroethene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Toluene	mg/L	0.001 U	0.083 U	**0.46[d]**	**0.29[d]**	0.15	0.033 U	0.05 U	0.04 U	0.018 U
trans-1,2-Dichloroethene	mg/L	0.03	0.052 J	0.019	0.026 J	0.013 J	0.0076 J	0.05 U	0.04 U	0.0049 J
trans-1,3-Dichloropropene	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	**1.5[deh]**	**2.7[deh]**	**0.61[deh]**	**2.2[deh]**	**1.3[deh]**	**0.79[deh]**	**0.38[deh]**	**0.51[deh]**	**0.24[deh]**
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.083 U	0.017 U	0.083 U	0.05 U	0.033 U	0.05 U	0.04 U	0.018 U
Vinyl chloride	mg/L	**0.14[deh]**	**0.061 J[deh]**	**0.028[deh]**	**0.048 J[deh]**	**0.034 J[deh]**	**0.2[deh]**	**0.39[deh]**	**0.43[deh]**	**0.27[deh]**
Xylenes (total)	mg/L	0.003 U	0.17 U	**0.48[deh]**	**0.25[d]**	**0.14[d]**	**0.046 J[d]**	0.1 U	0.019 J	0.0096 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-032508-CB-005*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*MW-6*	*BBLMW-6*	*BBLMW-6*	*BBLMW-6*	*BBLMW-6*	*W-1190507-090399-SN-011*	*17303-062603-HH-MW6-204*	*GW-17303-120303-DCR-267*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*04/24/1996*	*02/01/1997*	*05/01/1997*	*08/01/1997*	*11/01/1997*	*09/03/1999*	*06/26/2003*	*12/03/2003*
Sample Type:													
Parameter:	*Units*												
VOCs													
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U	-
1,1,1-Trichloroethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
1,1,2,2-Tetrachloroethane	mg/L	0.018 U	0.033 U	0.025 UJ	0.067 U	-	-	-	-	-	0.001 U	0.001 U	0.0067 U
1,1,2-Trichloroethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	0.001 U	0.001 U	0.0067 U
1,1-Dichloroethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
1,1-Dichloroethene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	0.001 U	0.025[eh]	-	0.01 U	0.001 U	0.001	0.001 U	0.0067 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U	-
1,2,4-Trichlorobenzene	mg/L	0.091 U	0.17 U	0.12 U	0.33 U	-	-	-	-	-	-	0.001 U	0.033 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	0.001 U	0.001 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	-	0.0067 U
1,2-Dichlorobenzene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	0.001 U	0.001 U	0.0067 U
1,2-Dichloroethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	0.0014	-	0.01 U	-	-	0.001 U	0.0067 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	0.001 U	0.001 U	-
1,3-Dichlorobenzene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	0.001 U	0.001 U	0.0067 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	0.001 U	0.001 U	0.0067 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.45 U	0.83 U	0.62 U	1.7 U	-	-	-	-	-	0.05 U	0.025 U	0.17 U
2-Hexanone	mg/L	0.91 U	1.7 U	1.2 U	3.3 U	-	-	-	-	-	-	0.05 U	0.33 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.91 U	1.7 U	1.2 U	3.3 U	-	-	-	-	-	-	0.05 U	0.33 U
Acetone	mg/L	0.053 J	0.83 U	0.62 U	1.7 U	-	-	-	-	-	-	0.025 U	0.17 U
Benzene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	0.023[eh]	0.023[eh]	0.05 U	0.005 U	0.002	0.005	0.01[eh]
Bromodichloromethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Bromoform	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Bromomethane (Methyl bromide)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Carbon disulfide	mg/L	0.091 U	0.17 U	0.12 U	0.33 U	-	-	-	-	-	-	0.005 U	0.033 U
Carbon tetrachloride	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Chlorobenzene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	0.01 U	-	-	0.001 U	0.0067 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U	-
Chloroethane	mg/L	0.018 UJ	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Chloroform (Trichloromethane)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Chloromethane (Methyl chloride)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
cis-1,2-Dichloroethene	mg/L	0.19[eh]	0.8[deh]	0.42[eh]	2.4[deh]	0.02	3.5[deh]	-	3[deh]	0.58[eh]	0.14[eh]	0.015	0.0064 J
cis-1,3-Dichloropropene	mg/L	0.018 U	0.033 UJ	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Cyclohexane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	-	0.0067 U
Dibromochloromethane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	0.02 U	-
Ethylbenzene	mg/L	0.018 U	0.033 UJ	0.025 U	0.067 U	-	0.001 U	0.001 U	0.01 U	0.001 U	0.001 U	0.001 U	0.0067 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	0.01 U	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-032508-CB-005*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*MW-6 04/24/1996*	*BBLMW-6 02/01/1997*	*BBLMW-6 05/01/1997*	*BBLMW-6 08/01/1997*	*BBLMW-6 11/01/1997*	*W-1190507-090399-SN-011*	*17303-062603-HH-MW6-204*	*GW-17303-120303-DCR-267*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*						*09/03/1999*	*06/26/2003*	*12/03/2003*
Sample Type:													
Parameter:	***Units***												
Isopropyl benzene	mg/L	0.091 U	0.17 U	0.12 U	0.33 U	-	-	-	-	-	-	0.005 U	0.033 U
Methyl acetate	mg/L	0.18 U	0.33 U	0.25 U	0.67 U	-	-	-	-	-	-	-	0.067 U
Methyl cyclohexane	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	-	0.0067 U
Methyl tert butyl ether (MTBE)	mg/L	0.091 U	0.17 U	0.12 U	0.33 U	-	0.21 eh	-	-	-	-	-	0.033 U
Methylene chloride	mg/L	0.0081 J eh	0.17 U	0.12 U	0.33 U	-	-	-	-	-	-	0.005 U	0.033 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	0.005 U	0.005 U	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	0.001 U	0.005 U	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.018 U	0.033 UJ	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Tetrachloroethene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
Toluene	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	0.002	0.002	0.01 U	0.001 U	0.001 U	0.001 U	0.0067 U
trans-1,2-Dichloroethene	mg/L	0.018 U	0.017 J	0.0089 J	0.063 J	0.0014	0.11 eh	-	0.12 eh	0.029	0.007	0.001 U	0.0067 U
trans-1,3-Dichloropropene	mg/L	0.018 U	0.033 U	0.025 UJ	0.067 U	-	-	-	-	-	-	0.001 U	0.0067 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	0.05 U	-
Trichloroethene	mg/L	0.53 deh	0.14 eh	0.25 deh	0.23 deh	0.0053 eh	0.5 deh	-	0.64 deh	0.14 eh	0.079 eh	0.033 eh	0.018 eh
Trichlorofluoromethane (CFC-11)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	-	0.0067 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.018 U	0.033 U	0.025 U	0.067 U	-	-	-	-	-	-	-	0.0067 U
Vinyl chloride	mg/L	0.014 J deh	0.54 deh	0.81 deh	0.6 deh	0.15 deh	4.4 cdehi	-	4.2 cdehi	1 deh	0.92 deh	0.28 deh	0.24 deh
Xylenes (total)	mg/L	0.036 U	0.067 UJ	0.05 U	0.13 U	-	0.0028	0.0028	0.03 U	0.003 U	0.003 U	0.003 U	0.013 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*GW-17303-040104-DCR-308*	*GW-17303-063004-DR-368*	*GW-17303-092204-MM-638*	*GW-17303-120804-DCR-661*	*GW-17303-031005-DR-689*	*WG-17303-062305-DR-0820*	*WG-17303-100505-AB-0887*	*WG-17303-121405-AB-0919*	*WG-17303-030806-NR-0958*
Sample Date:		*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*	*03/08/2006*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.033 U	0.045 U	0.056 U	0.056 U	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.17 U	0.23 U	0.28 U	0.28 U	0.78 U	1.3 U	1.3 U	1.3 U	1.2 U
2-Hexanone	mg/L	0.33 U	0.45 U	0.56 U	0.56 U	1.6 U	2.5 U	2.5 U	2.5 U	2.5 UJ
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.33 U	0.45 U	0.56 U	0.56 U	1.6 U	2.5 U	2.5 U	2.5 U	2.5 U
Acetone	mg/L	0.17 U	0.23 U	0.28 U	0.28 U	0.78 U	1.3 U	1.3 U	1.3 U	1.2 U
Benzene	mg/L	**0.0097[eh]**	**0.0097[eh]**	**0.014[eh]**	**0.011[eh]**	**0.01 J[eh]**	**0.012 J[eh]**	**0.012 J[eh]**	**0.011 J[eh]**	0.05 U
Bromodichloromethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane (Methyl bromide)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon disulfide	mg/L	0.033 U	0.045 U	0.056 U	0.056 U	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U
Carbon tetrachloride	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform (Trichloromethane)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane (Methyl chloride)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,2-Dichloroethene	mg/L	0.011	0.011	0.035	0.055	**0.075[eh]**	**0.14[eh]**	**0.29[eh]**	**0.24[eh]**	**0.23[eh]**
cis-1,3-Dichloropropene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Cyclohexane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*GW-17303-040104-DCR-308*	*GW-17303-063004-DR-368*	*GW-17303-092204-MM-638*	*GW-17303-120804-DCR-661*	*GW-17303-031005-DR-689*	*WG-17303-062305-DR-0820*	*WG-17303-100505-AB-0887*	*WG-17303-121405-AB-0919*	*WG-17303-030806-NR-0958*
Sample Date:		*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*	*03/08/2006*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.033 U	0.045 U	0.056 U	0.056 U	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U
Methyl acetate	mg/L	0.067 U	0.091 U	0.11 U	0.11 U	0.31 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl cyclohexane	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Methyl tert butyl ether (MTBE)	mg/L	0.033 U	0.045 U	0.056 U	0.056 U	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U
Methylene chloride	mg/L	0.033 U	0.045 U	0.056 U	0.056 U	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U
m-Xylene	mg/L	-	-	-	-	0.063 U	0.1 U	0.1 U	0.1 U	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	0.031 U	0.05 U	0.05 U	0.05 U	-
Styrene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Toluene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene	mg/L	0.0067 U	0.0091 U	0.0021 J	0.0023 J	0.0033 J	0.0057 J	0.011 J	0.011 J	0.0087 J
trans-1,3-Dichloropropene	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.0046 J	**0.015^{eh}**	**0.061^{eh}**	**0.075^{eh}**	**0.043^{eh}**	**0.038 J^{eh}**	**0.025 J^{eh}**	**0.056^{eh}**	**0.043 J^{eh}**
Trichlorofluoromethane (CFC-11)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.0067 U	0.0091 U	0.011 U	0.011 U	0.031 U	0.05 U	0.05 U	0.05 U	0.05 U
Vinyl chloride	mg/L	**0.22^{deh}**	**0.35^{deh}**	**0.32^{deh}**	**0.33^{deh}**	**0.39^{deh}**	**0.67^{deh}**	**0.92^{deh}**	**0.86^{deh}**	**1.1 J^{cdeh}**
Xylenes (total)	mg/L	0.013 U	0.018 U	0.022 U	0.022 U	0.094 U	0.15 U	0.15 U	0.15 U	0.1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-063006-LR-019*	*WG-17303-100506-NRS-063*	*WG-17303-100506-NRS-064*	*WG-17303-120606-AF-013*	*WG-17303-030807-EV-017*	*WG-17303-060507-DR-008*	*WG-17303-090507-DR-009*	*GW-17303-120607-DR-027*	*WG-17303-032508-CB-013*
Sample Date:		*06/30/2006*	*10/05/2006*	*10/05/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/06/2007*	*03/25/2008*
Sample Type:				*Duplicate*						
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 UJ	0.025 U	0.029 U	0.05 U
1,1,2-Trichloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,1-Dichloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,1-Dichloroethene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.17 U	0.2 U	0.2 U	0.17 U	0.25 U	0.083 U	0.12 U	0.14 U	0.25 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	0.017 U	0.025 U	0.029 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,2-Dichlorobenzene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,2-Dichloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	0.017 U	0.025 U	0.029 U	-
1,3-Dichlorobenzene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.83 U	1 U	1 U	0.83 U	1.2 U	0.42 U	0.62 U	0.71 U	1.2 U
2-Hexanone	mg/L	1.7 U	2 U	2 U	1.7 U	2.5 U	0.83 U	1.2 U	1.4 U	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	1.7 UJ	2 U	2 U	1.7 U	2.5 U	0.83 UJ	1.2 U	1.4 U	2.5 U
Acetone	mg/L	0.83 U	1 U	1 U	0.83 U	1.2 U	0.42 U	0.62 U	0.71 U	1.2 U
Benzene	mg/L	**0.013 J[eh]**	0.04 U	**0.017 J[eh]**	0.033 U	0.05 U	**0.0089 J[eh]**	**0.011 J[eh]**	**0.012 J[eh]**	0.05 U
Bromodichloromethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Bromoform	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Bromomethane (Methyl bromide)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Carbon disulfide	mg/L	0.17 U	0.2 U	0.2 U	0.17 U	0.25 U	0.083 U	0.12 U	0.14 U	0.25 U
Carbon tetrachloride	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Chlorobenzene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 UJ
Chloroform (Trichloromethane)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Chloromethane (Methyl chloride)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
cis-1,2-Dichloroethene	mg/L	**0.4[eh]**	**0.43[eh]**	**0.46[eh]**	**0.29[eh]**	**0.44[eh]**	**0.31[eh]**	**0.36[eh]**	**0.33[eh]**	**0.37[eh]**
cis-1,3-Dichloropropene	mg/L	0.033 UJ	0.04 U	0.04 U	0.033 UJ	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Cyclohexane	mg/L	0.033 UJ	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Dibromochloromethane	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.033 UJ	0.04 U	0.04 U	0.033 U	0.05 U	0.017 UJ	0.025 U	0.029 U	0.05 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-063006-LR-019*	*WG-17303-100506-NRS-063*	*WG-17303-100506-NRS-064*	*WG-17303-120606-AF-013*	*WG-17303-030807-EV-017*	*WG-17303-060507-DR-008*	*WG-17303-090507-DR-009*	*GW-17303-120607-DR-027*	*WG-17303-032508-CB-013*
Sample Date:		*06/30/2006*	*10/05/2006*	*10/05/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/06/2007*	*03/25/2008*
Sample Type:				*Duplicate*						
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.17 U	0.2 U	0.2 U	0.17 U	0.25 U	0.083 U	0.12 U	0.14 U	0.25 U
Methyl acetate	mg/L	0.33 U	0.4 U	0.4 U	0.33 U	0.5 U	0.17 UJ	0.25 U	0.29 U	0.5 U
Methyl cyclohexane	mg/L	0.033 UJ	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Methyl tert butyl ether (MTBE)	mg/L	0.17 U	0.2 U	0.2 U	0.17 U	0.25 U	0.083 U	0.12 U	0.14 U	0.25 U
Methylene chloride	mg/L	0.17 U	0.2 U	0.2 U	0.17 U	0.25 U	0.083 U	0.12 U	0.14 U	**0.016 J[eh]**
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.033 UJ	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Tetrachloroethene	mg/L	0.033 U	0.04 UJ	0.04 UJ	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Toluene	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
trans-1,2-Dichloroethene	mg/L	0.016 J	0.017 J	0.018 J	0.012 J	0.016 J	0.014 J	0.016 J	0.013 J	0.017 J
trans-1,3-Dichloropropene	mg/L	0.033 UJ	0.04 UJ	0.04 UJ	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	**0.021 J[eh]**	**0.037 J[eh]**	**0.041[eh]**	**0.03 J[eh]**	0.05 U	**0.024[eh]**	**0.048[eh]**	**0.026 J[eh]**	**0.037 J[eh]**
Trichlorofluoromethane (CFC-11)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.033 U	0.04 U	0.04 U	0.033 U	0.05 U	0.017 U	0.025 U	0.029 U	0.05 U
Vinyl chloride	mg/L	**1.1[cdeh]**	**1.1[cdeh]**	**1.3[cdehi]**	**0.84[deh]**	**1.3[cdehi]**	**0.65[deh]**	**0.65[deh]**	**0.65[deh]**	**1.2[cdehi]**
Xylenes (total)	mg/L	0.067 U	0.08 U	0.08 U	0.067 U	0.1 U	0.033 U	0.05 U	0.057 U	0.1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW18-03*	*MW18-06*	*MW18-06*	*MW18-06*	*MW18-06*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-061908-DR-019*	*WG-17303-092308-CB-029*	*WG-17303-070706-EV-032*	*WG-17303-081005-DR-0862*	*WG-17303-081005-DR-0863*	*WG-17303-081005-DR-0864*	*WG-17303-081005-DR-0865*	*WG-17303-030806-LA-0960*	*WG-17303-070606-EV-027*
Sample Date:		*06/19/2008*	*09/23/2008*	*07/07/2006*	*08/10/2005*	*08/10/2005*	*08/10/2005*	*08/10/2005*	*03/08/2006*	*07/06/2006*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,1,2,2-Tetrachloroethane	mg/L	0.04 U	0.067 UJ	25 U	12 UJ	10 U	10 U	10 U	0.01 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,1-Dichloroethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,1-Dichloroethene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.0018 J	0.0012 J
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.2 U	0.33 U	120 U	62 U	50 U	50 U	50 U	0.05 U	0.025 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,2-Dichlorobenzene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,2-Dichloroethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	1 U	1.7 U	620 U	310 U	250 U	250 U	250 U	0.25 U	0.12 U
2-Hexanone	mg/L	2 U	3.3 U	1200 U	620 U	500 U	500 U	500 U	0.5 U	0.25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2 U	3.3 U	1200 UJ	620 U	500 U	500 U	500 U	0.5 U	0.25 U
Acetone	mg/L	1 U	1.7 U	620 U	310 U	250 U	250 U	250 U	0.25 U	0.12 U
Benzene	mg/L	**0.017 J[eh]**	**0.016 J[eh]**	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Bromodichloromethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Bromoform	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Bromomethane (Methyl bromide)	mg/L	0.04 U	0.067 U	25 U	12 UJ	10 U	10 U	10 U	0.01 U	0.005 U
Carbon disulfide	mg/L	0.2 U	0.33 U	120 UJ	62 U	50 U	50 U	50 U	0.05 U	0.025 U
Carbon tetrachloride	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Chlorobenzene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Chloroform (Trichloromethane)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Chloromethane (Methyl chloride)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
cis-1,2-Dichloroethene	mg/L	**0.48[eh]**	**0.6[eh]**	**500[cdefhij]**	**390[cdefhij]**	**360[cdefhij]**	**360[cdefhij]**	**360[cdefhij]**	**0.27[eh]**	**0.15[eh]**
cis-1,3-Dichloropropene	mg/L	0.04 U	0.067 U	25 UJ	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Cyclohexane	mg/L	0.04 U	0.067 U	25 UJ	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Dibromochloromethane	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.04 U	0.067 U	25 UJ	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.04 UJ	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW18-03*	*MW18-06*	*MW18-06*	*MW18-06*	*MW18-06*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-061908-DR-019*	*WG-17303-092308-CB-029*	*WG-17303-070706-EV-032*	*WG-17303-081005-DR-0862*	*WG-17303-081005-DR-0863*	*WG-17303-081005-DR-0864*	*WG-17303-081005-DR-0865*	*WG-17303-030806-LA-0960*	*WG-17303-070606-EV-027*
Sample Date:		*06/19/2008*	*09/23/2008*	*07/07/2006*	*08/10/2005*	*08/10/2005*	*08/10/2005*	*08/10/2005*	*03/08/2006*	*07/06/2006*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.2 U	0.33 U	120 U	62 U	50 U	50 U	50 U	0.05 U	0.025 U
Methyl acetate	mg/L	0.4 U	0.67 U	250 U	120 U	100 U	100 U	100 U	0.1 U	0.05 U
Methyl cyclohexane	mg/L	0.04 U	0.067 U	25 UJ	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Methyl tert butyl ether (MTBE)	mg/L	0.2 U	0.33 U	120 UJ	62 U	50 U	50 U	50 U	0.05 U	0.025 U
Methylene chloride	mg/L	0.2 U	0.33 U	120 U	62 U	50 UJ	50 UJ	50 UJ	0.05 U	0.025 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Tetrachloroethene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Toluene	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
trans-1,2-Dichloroethene	mg/L	0.021 J	0.026 J	25 U	12 U	10 U	10 U	10 U	0.11[eh]	0.076
trans-1,3-Dichloropropene	mg/L	0.04 U	0.067 U	25 UJ	12 U	10 U	10 U	10 U	0.01 U	0.005 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.025 J[eh]	0.067 U	260[cdefhij]	4.9 J[dehj]	10 U	10 U	10 U	0.047[eh]	0.022[eh]
Trichlorofluoromethane (CFC-11)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.04 U	0.067 U	25 U	12 U	10 U	10 U	10 U	0.01 U	0.005 U
Vinyl chloride	mg/L	1.1[cdeh]	1.4[cdehi]	52[bcdefhij]	50[bcdefhij]	45[bcdefhij]	42[bcdefhij]	42[bcdefhij]	0.13[deh]	0.12[deh]
Xylenes (total)	mg/L	0.08 UJ	0.13 U	50 U	25 U	20 U	20 U	20 U	0.02 U	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-100306-NRS-046*	*WG-17303-120606-JJ-011*	*WG-17303-120606-JJ-012*	*WG-17303-030907-JJ-027*	*WG-17303-060507-EV-009*	*WG-17303-090507-DR-010*	*WG-17303-120507-DR-012*	*WG-17303-032608-CB-020*	*WG-17303-061908-CB-018*
Sample Date:		*10/03/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*
Sample Type:				*Duplicate*						
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,1,2,2-Tetrachloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 UJ	0.008 U	0.008 U	0.0067 U	0.008 U
1,1,2-Trichloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,1-Dichloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,1-Dichloroethene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.04 U	0.033 U	0.033 U	0.042 U	0.04 U	0.04 U	0.04 U	0.033 U	0.04 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	0.008 U	0.008 U	0.008 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,2-Dichlorobenzene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,2-Dichloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	0.008 U	0.008 U	0.008 U	-	-
1,3-Dichlorobenzene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.2 U	0.17 U	0.17 U	0.21 U	0.2 U	0.2 U	0.2 U	0.17 U	0.2 U
2-Hexanone	mg/L	0.4 U	0.33 U	0.33 U	0.42 U	0.4 U	0.4 U	0.4 U	0.33 U	0.4 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.4 UJ	0.33 U	0.33 U	0.42 U	0.4 U	0.4 U	0.4 U	0.33 U	0.4 U
Acetone	mg/L	0.2 U	0.17 U	0.17 U	0.21 U	0.2 U	0.2 U	0.2 U	0.17 U	0.2 U
Benzene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Bromodichloromethane	mg/L	0.008 UJ	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Bromoform	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Bromomethane (Methyl bromide)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Carbon disulfide	mg/L	0.04 U	0.033 U	0.033 U	0.042 U	0.04 U	0.04 U	0.04 U	0.033 U	0.04 U
Carbon tetrachloride	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Chlorobenzene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 UJ	0.008 U
Chloroform (Trichloromethane)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Chloromethane (Methyl chloride)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
cis-1,2-Dichloroethene	mg/L	**0.21**[eh]	**0.19**[eh]	**0.17**[eh]	**0.19**[eh]	**0.22**[eh]	**0.23**[eh]	**0.21**[eh]	**0.21**[eh]	**0.17**[eh]
cis-1,3-Dichloropropene	mg/L	0.008 UJ	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Cyclohexane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Dibromochloromethane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 UJ	0.008 U	0.008 U	0.0067 U	0.008 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.008 UJ	0.0067 U	0.0067 UJ	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 UJ
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-100306-NRS-046*	*WG-17303-120606-JJ-011*	*WG-17303-120606-JJ-012*	*WG-17303-030907-JJ-027*	*WG-17303-060507-EV-009*	*WG-17303-090507-DR-010*	*WG-17303-120507-DR-012*	*WG-17303-032608-CB-020*	*WG-17303-061908-CB-018*
Sample Date:		*10/03/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*
Sample Type:				*Duplicate*						
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.04 U	0.033 U	0.033 U	0.042 U	0.04 U	0.04 U	0.04 U	0.033 U	0.04 U
Methyl acetate	mg/L	0.08 U	0.067 U	0.067 U	0.083 U	0.08 UJ	0.08 U	0.08 U	0.067 U	0.08 U
Methyl cyclohexane	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Methyl tert butyl ether (MTBE)	mg/L	0.04 U	0.033 U	0.033 U	0.042 U	0.04 U	0.04 U	0.04 U	0.033 U	0.04 U
Methylene chloride	mg/L	0.04 U	0.033 U	0.033 U	0.042 U	0.04 U	0.04 U	0.04 U	0.033 U	0.04 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Tetrachloroethene	mg/L	0.008 UJ	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Toluene	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
trans-1,2-Dichloroethene	mg/L	0.077	0.063	0.053 J	0.09	**0.12**[eh]	**0.11**[eh]	0.085	0.09	0.075
trans-1,3-Dichloropropene	mg/L	0.008 UJ	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	**0.023**[eh]	**0.023**[eh]	**0.024**[eh]	**0.024**[eh]	**0.023**[eh]	**0.024**[eh]	**0.017**[eh]	**0.022**[eh]	**0.012**[eh]
Trichlorofluoromethane (CFC-11)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.008 U	0.0067 U	0.0067 U	0.0083 U	0.008 U	0.008 U	0.008 U	0.0067 U	0.008 U
Vinyl chloride	mg/L	**0.1**[deh]	**0.11**[deh]	**0.083**[deh]	**0.095**[deh]	**0.075**[deh]	**0.086**[deh]	**0.11**[deh]	**0.09**[deh]	**0.087**[deh]
Xylenes (total)	mg/L	0.016 U	0.013 U	0.013 U	0.017 U	0.016 U	0.016 U	0.016 U	0.013 U	0.016 UJ

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-092408-CB-047*	*WG-17303-120908-CB-060*	*WG-17303-032409-LS-079*	*WG-17303-081105-DR-0867*	*WG-17303-081105-DR-0868*	*WG-17303-081105-DR-0869*	*WG-17303-081105-DR-0870*	*WG-17303-100605-AB-0894*	*WG-17303-121405-NR-0914*
Sample Date:		*09/24/2008*	*12/09/2008*	*03/24/2009*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*10/06/2005*	*12/14/2005*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,1,2,2-Tetrachloroethane	mg/L	0.0057 UJ	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,1,2-Trichloroethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,1-Dichloroethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,1-Dichloroethene	mg/L	0.0012 J	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.029 U	0.033 U	0.05 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.3 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,2-Dichlorobenzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,2-Dichloroethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.14 U	0.17 U	0.25 U	8.3 U	8.3 U	8.3 U	8.3 U	8.9 U	6.3 U
2-Hexanone	mg/L	0.29 U	0.33 U	0.5 U	17 U	17 U	17 U	17 U	18 U	13 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.29 U	0.33 U	0.5 U	17 U	17 U	17 U	17 U	18 U	13 U
Acetone	mg/L	0.14 U	0.17 U	0.25 U	8.3 U	8.3 U	8.3 U	8.3 U	1.8 J[dh]	6.3 U
Benzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Bromodichloromethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Bromoform	mg/L	0.0057 UJ	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Bromomethane (Methyl bromide)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Carbon disulfide	mg/L	0.029 U	0.033 U	0.05 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.3 U
Carbon tetrachloride	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Chlorobenzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Chloroform (Trichloromethane)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Chloromethane (Methyl chloride)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
cis-1,2-Dichloroethene	mg/L	0.22[ch]	0.21[eh]	0.26[ch]	7.4[deh]	7.5[deh]	6.5[deh]	7.8[deh]	6.8[deh]	4[deh]
cis-1,3-Dichloropropene	mg/L	0.0057 UJ	0.0067 UJ	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 UJ	0.25 U
Cyclohexane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Dibromochloromethane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.0057 U	0.0067 UJ	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-092408-CB-047*	*WG-17303-120908-CB-060*	*WG-17303-032409-LS-079*	*WG-17303-081105-DR-0867*	*WG-17303-081105-DR-0868*	*WG-17303-081105-DR-0869*	*WG-17303-081105-DR-0870*	*WG-17303-100605-AB-0894*	*WG-17303-121405-NR-0914*
Sample Date:		*09/24/2008*	*12/09/2008*	*03/24/2009*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*08/11/2005*	*10/06/2005*	*12/14/2005*
Sample Type:										
Parameter:	***Units***									
Isopropyl benzene	mg/L	0.029 U	0.033 U	0.05 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.3 U
Methyl acetate	mg/L	0.057 U	0.067 U	0.1 U	3.3 U	3.3 U	3.3 U	3.3 U	3.6 UJ	2.5 U
Methyl cyclohexane	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Methyl tert butyl ether (MTBE)	mg/L	0.029 U	0.033 U	0.05 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.3 U
Methylene chloride	mg/L	0.029 U	0.033 U	0.05 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.3 U
m-Xylene	mg/L	-	-	-	-	-	-	-	0.71 U	0.5 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	0.36 U	0.25 U
Styrene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Tetrachloroethene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Toluene	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
trans-1,2-Dichloroethene	mg/L	0.085	0.068	**0.12^{eh}**	**0.17 J^{eh}**	**0.17 J^{eh}**	**0.12 J^{eh}**	**0.17 J^{eh}**	0.085 J	0.031 J
trans-1,3-Dichloropropene	mg/L	0.0057 UJ	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 UJ	0.25 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	**0.014^{eh}**	**0.0089^{eh}**	**0.031^{eh}**	**3.4^{deh}**	**3.5^{deh}**	**3.1^{deh}**	**3.7^{dehj}**	**2.9^{deh}**	**0.53^{deh}**
Trichlorofluoromethane (CFC-11)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.0057 U	0.0067 U	0.01 U	0.33 U	0.33 U	0.33 U	0.33 U	0.36 U	0.25 U
Vinyl chloride	mg/L	**0.093^{deh}**	**0.11^{deh}**	**0.064^{deh}**	**1.5^{cdehi}**	**1.5^{cdehi}**	**1.4^{cdehi}**	**1.6^{cdehi}**	**1.6^{cdehi}**	**2.3^{cdehi}**
Xylenes (total)	mg/L	0.011 U	0.013 U	0.02 U	0.67 U	0.67 U	0.67 U	0.67 U	1.1 U	0.75 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-030806-NR-0959*	*WG-17303-070606-EV-029*	*WG-17303-100306-NRS-039*	*WG-17303-120506-DK-004*	*WG-17303-030807-DR-013*	*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*
Sample Date:		*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*
Sample Type:								*Duplicate*		*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,1,2,2-Tetrachloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 UJ	3.3 U	3.3 U	3.3 U
1,1,2-Trichloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,1-Dichloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,1-Dichloroethene	mg/L	0.34 J[dehi]	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	8.3 U	17 U	10 U	12 U	12 U	17 U	17 U	17 U	17 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	3.3 U	3.3 U	3.3 U	3.3 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,2-Dichlorobenzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,2-Dichloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	3.3 U	3.3 U	3.3 U	3.3 U
1,3-Dichlorobenzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	42 U	83 U	50 U	62 U	62 U	83 U	83 U	83 U	83 U
2-Hexanone	mg/L	83 U	170 U	100 U	120 U	120 U	170 U	170 U	170 U	170 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	83 U	170 UJ	100 U	120 U	120 U	170 UJ	170 UJ	170 U	170 U
Acetone	mg/L	42 U	83 U	50 U	62 U	62 U	83 U	83 U	83 U	83 U
Benzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Bromodichloromethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Bromoform	mg/L	1.7 U	3.3 U	2 UJ	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Bromomethane (Methyl bromide)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Carbon disulfide	mg/L	8.3 U	17 UJ	10 U	12 U	12 U	17 U	17 U	17 U	17 U
Carbon tetrachloride	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Chlorobenzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Chloroform (Trichloromethane)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Chloromethane (Methyl chloride)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
cis-1,2-Dichloroethene	mg/L	48[dehj]	76[dehj]	73[dehj]	88[dehj]	84[dehj]	110[dehij]	110[dehij]	110[dehij]	110[dehij]
cis-1,3-Dichloropropene	mg/L	1.7 U	3.3 UJ	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Cyclohexane	mg/L	1.7 U	3.3 UJ	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Dibromochloromethane	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.7 U	3.3 UJ	2 UJ	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-030806-NR-0959*	*WG-17303-070606-EV-029*	*WG-17303-100306-NRS-039*	*WG-17303-120506-DK-004*	*WG-17303-030807-DR-013*	*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*
Sample Date:		*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*
Sample Type:								*Duplicate*		*Duplicate*
Parameter:	***Units***									
Isopropyl benzene	mg/L	8.3 U	17 U	10 U	12 U	12 U	17 U	17 U	17 U	17 U
Methyl acetate	mg/L	17 U	33 U	20 U	25 U	25 U	33 UJ	33 UJ	33 U	33 U
Methyl cyclohexane	mg/L	1.7 U	3.3 UJ	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Methyl tert butyl ether (MTBE)	mg/L	8.3 U	17 UJ	10 U	12 U	12 U	17 U	17 U	17 U	17 U
Methylene chloride	mg/L	8.3 U	17 U	10 U	12 U	12 U	17 U	17 U	17 U	17 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Tetrachloroethene	mg/L	1.7 U	3.3 U	2 UJ	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Toluene	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
trans-1,2-Dichloroethene	mg/L	0.43 J[eh]	0.64 J[eh]	0.51 J[eh]	0.61 J[eh]	0.69 J[eh]	0.85 J[eh]	0.65 J[eh]	0.94 J[eh]	1 J[eh]
trans-1,3-Dichloropropene	mg/L	1.7 U	3.3 UJ	2 UJ	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	4.7[dehj]	8.7[dehj]	4.3[dehj]	4.8[dehj]	5.4[dehj]	4.9[dehj]	4.8[dehj]	5.3[dehj]	5.5[dehj]
Trichlorofluoromethane (CFC-11)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.7 U	3.3 U	2 U	2.5 U	2.5 U	3.3 U	3.3 U	3.3 U	3.3 U
Vinyl chloride	mg/L	6.5[cdehi]	9.8[cdehi]	8.1[cdehi]	10[cdehi]	12[cdehi]	16[cdefhi]	15[cdefhi]	15[cdefhi]	15[cdefhi]
Xylenes (total)	mg/L	3.3 U	6.7 U	4 U	5 U	5 U	6.7 U	6.7 U	6.7 U	6.7 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*
Sample Date:		*12/05/2007*	*12/05/2007*	*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*	*03/26/2009*
Sample Type:			*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*	
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,1,2,2-Tetrachloroethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 UJ	3.3 UJ	1.7 U
1,1,2-Trichloroethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,1-Dichloroethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,1-Dichloroethene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	25 U	25 U	12 U	12 U	25 U	25 U	17 U	17 U	8.3 U
1,2,4-Trimethylbenzene	mg/L	5 U	5 U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,2-Dichlorobenzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,2-Dichloroethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,3,5-Trimethylbenzene	mg/L	5 U	5 U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	120 U	120 U	62 U	62 U	120 U	120 U	83 U	83 U	42 U
2-Hexanone	mg/L	250 U	250 U	120 U	120 U	250 U	250 U	170 U	170 U	83 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	250 U	250 U	120 U	120 U	250 U	250 U	170 U	170 U	83 U
Acetone	mg/L	120 U	120 U	62 U	62 U	120 U	120 U	83 U	83 U	42 U
Benzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Bromodichloromethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Bromoform	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Bromomethane (Methyl bromide)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Carbon disulfide	mg/L	25 U	25 U	12 U	12 U	25 U	25 U	17 U	17 U	8.3 U
Carbon tetrachloride	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Chlorobenzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	5 U	5 U	2.5 UJ	2.5 UJ	5 U	5 U	3.3 U	3.3 U	1.7 U
Chloroform (Trichloromethane)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Chloromethane (Methyl chloride)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
cis-1,2-Dichloroethene	mg/L	**110**[dehij]	**110**[dehij]	**89**[dehj]	**98**[dehij]	**140**[dehij]	**140**[dehij]	**82**[dehj]	**80**[dehj]	**54**[dehj]
cis-1,3-Dichloropropene	mg/L	5 U	5 U	2.5 U	2.5 U	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U
Cyclohexane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Dibromochloromethane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	5 U	5 U	2.5 U	2.5 U	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*
Sample Date:		*12/05/2007*	*12/05/2007*	*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*	*03/26/2009*
Sample Type:			*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*	
Parameter:	***Units***									
Isopropyl benzene	mg/L	25 U	25 U	12 U	12 U	25 U	25 U	17 U	17 U	8.3 U
Methyl acetate	mg/L	50 U	50 U	25 U	25 U	50 U	50 U	33 U	33 U	17 U
Methyl cyclohexane	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Methyl tert butyl ether (MTBE)	mg/L	25 U	25 U	12 U	12 U	25 U	25 U	17 U	17 U	8.3 U
Methylene chloride	mg/L	25 U	25 U	12 U	12 U	25 U	25 U	17 U	17 U	8.3 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	5 U	5 U	2.5 U	2.5 U	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U
Tetrachloroethene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Toluene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
trans-1,2-Dichloroethene	mg/L	5 U	1.1 J[eh]	0.67 J[eh]	0.81 J[eh]	5 U	0.95 J[eh]	0.82 J[eh]	3.3 U	0.47 J[eh]
trans-1,3-Dichloropropene	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 UJ	3.3 UJ	1.7 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	3.9 J[dehj]	2.9 J[deh]	3.6[dehj]	3.8[dehj]	5.5[dehj]	5.2[dehj]	3.2 J[deh]	3.2 J[deh]	6.4[dehj]
Trichlorofluoromethane (CFC-11)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Trifluorotrichloroethane (Freon 113)	mg/L	5 U	5 U	2.5 U	2.5 U	5 U	5 U	3.3 U	3.3 U	1.7 U
Vinyl chloride	mg/L	14[cdefhi]	17[cdefhi]	24[cdefhij]	28[cdefhij]	20[cdefhij]	20[cdefhij]	14[cdefhi]	14[cdefhi]	16[cdefhi]
Xylenes (total)	mg/L	10 U	10 U	5 U	5 U	10 UJ	10 UJ	6.7 U	6.7 U	3.3 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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ft BGS - feet below ground surface
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW19-17*	*MW19-18*	*MW19-19*	*PW3-99*	*PZ18-131*
Sample ID:		*WG-17303-032609-CB-091*	*WG-17303-041310-CB-006*	*WG-17303-041310-CB-007*	*WG-17303-102510-DR-016*	*GW-17303-120303-DCR-270*	*GW-17303-120303-DCR-271*	*GW-17303-120303-DCR-272*	*W-1190511-120699-SN-028*	*WG-17303-062205-DR-0808*
Sample Date:		*03/26/2009*	*04/13/2010*	*04/13/2010*	*10/25/2010*	*12/03/2003*	*12/03/2003*	*12/03/2003*	*12/06/1999*	*06/22/2005*
Sample Type:		*Duplicate*		*Duplicate*						
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,1,2,2-Tetrachloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
1,1,2-Trichloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
1,1-Dichloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,1-Dichloroethene	mg/L	1.7 U	3.3 U	3.3 U	5 U	0.61 J[dehi]	0.2 U	0.12 U	0.001 U	0.005 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	8.3 U	17 U	17 U	25 U	8.3 U	1 U	0.62 U	-	0.025 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,2-Dichlorobenzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
1,2-Dichloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	-
1,3-Dichlorobenzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	42 U	83 U	83 U	120 U	42 U	5 U	3.1 U	0.05 U	0.12 U
2-Hexanone	mg/L	83 U	170 U	170 U	250 U	83 U	10 U	6.2 U	-	0.25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	83 U	170 U	170 U	250 U	83 U	10 U	6.2 U	-	0.25 UJ
Acetone	mg/L	42 U	83 U	83 U	120 U	42 U	5 U	3.1 U	-	R
Benzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
Bromodichloromethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Bromoform	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Bromomethane (Methyl bromide)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Carbon disulfide	mg/L	8.3 U	17 U	17 U	25 U	8.3 U	1 U	0.62 U	-	0.025 U
Carbon tetrachloride	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Chlorobenzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Chloroform (Trichloromethane)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Chloromethane (Methyl chloride)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
cis-1,2-Dichloroethene	mg/L	53[dehj]	90[dehj]	88[dehj]	100[dehij]	53[dehj]	6.2[deh]	2.8[deh]	0.437[eh]	0.13[eh]
cis-1,3-Dichloropropene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Cyclohexane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Dibromochloromethane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 UJ
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	0.001 U	0.005 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW19-17*	*MW19-18*	*MW19-19*	*PW3-99*	*PZ18-131*
Sample ID:		*WG-17303-032609-CB-091*	*WG-17303-041310-CB-006*	*WG-17303-041310-CB-007*	*WG-17303-102510-DR-016*	*GW-17303-120303-DCR-270*	*GW-17303-120303-DCR-271*	*GW-17303-120303-DCR-272*	*W-1190511-120699-SN-028*	*WG-17303-062205-DR-0808*
Sample Date:		*03/26/2009*	*04/13/2010*	*04/13/2010*	*10/25/2010*	*12/03/2003*	*12/03/2003*	*12/03/2003*	*12/06/1999*	*06/22/2005*
Sample Type:		*Duplicate*		*Duplicate*						
Parameter:	***Units***									
Isopropyl benzene	mg/L	8.3 U	17 U	17 U	25 U	8.3 U	0.14 J[d]	0.62 U	-	0.025 U
Methyl acetate	mg/L	17 U	33 U	33 U	50 U	17 U	2 U	1.2 U	-	0.05 U
Methyl cyclohexane	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Methyl tert butyl ether (MTBE)	mg/L	8.3 U	17 U	17 U	25 U	8.3 U	1 U	0.62 U	-	0.025 U
Methylene chloride	mg/L	8.3 U	17 U	17 U	2.2 J[deh]	8.3 U	1 U	0.62 U	-	0.025 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	0.005 U	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Tetrachloroethene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Toluene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.051 J	0.12 U	0.001 U	0.005 U
trans-1,2-Dichloroethene	mg/L	0.52 J[eh]	3.3 U	0.68 J[eh]	5 U	2.2[deh]	0.2 U	0.079 J	0.0126	0.087
trans-1,3-Dichloropropene	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	5.8[dehj]	3 J[deh]	2.8 J[deh]	4.8 J[dehj]	12[dehj]	0.55[deh]	0.62[deh]	0.001 U	0.0075 U
Trichlorofluoromethane (CFC-11)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.7 U	3.3 U	3.3 U	5 U	1.7 U	0.2 U	0.12 U	-	0.005 U
Vinyl chloride	mg/L	15[cdefhi]	42[bcdefhij]	43[bcdefhij]	25[cdefhij]	4.7[cdehi]	5.7[cdehi]	3.8[cdehi]	0.0695[deh]	0.14[deh]
Xylenes (total)	mg/L	3.3 U	6.7 U	6.7 U	10 U	3.3 U	0.4 U	0.25 U	0.003 U	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*PZ18-133*	*PZ18-133*	*PZ18-195*	*PZ18-195*	*PZ18-195*	*SB18-204*	*TW-9*	*BH3-99*	*BH4-99*	*BH4-99*
Sample ID:		*WG-17303-100605-AB-0901*	*WG-17303-121405-AB-0920*	*WG-17303-062205-DR-0810*	*WG-17303-100605-AB-0897*	*WG-17303-121405-NR-0917*	*WG-17303-060605-DR-0742*	*TW-9*	*W-1190511-111999-SN-021*	*W-1190511-111999-SN-022*	*W-1190511-111999-SN-023*
Sample Date:		*10/06/2005*	*12/14/2005*	*06/22/2005*	*10/06/2005*	*12/14/2005*	*06/06/2005*	*09/12/1996*	*11/19/1999*	*11/19/1999*	*11/19/1999*
Sample Type:											*Duplicate*
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	0.003	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.56 U	0.25 U	0.63 U	1 U	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.00035 J	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	2.8 U	1.3 U	3.1 U	5 U	-	0.05 U	0.05 U	0.05 U
2-Hexanone	mg/L	0.05 U	0.05 U	5.6 U	2.5 U	6.3 U	10 U	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	5.6 UJ	2.5 U	6.3 U	10 U	-	-	-	-
Acetone	mg/L	0.001 J	0.025 U	R	0.23 J	3.1 U	5 U	-	-	-	-
Benzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Bromoform	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Carbon disulfide	mg/L	0.005 U	0.005 U	0.56 U	0.25 U	0.63 U	1 U	-	-	-	-
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Chlorobenzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.015	0.0046	2.8 deh	1.2 deh	1.6 deh	2.9 deh	2.88 deh	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.11 U	0.05 UJ	0.13 U	0.2 U	-	-	-	-
Cyclohexane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.11 UJ	0.05 U	0.13 U	0.2 U	-	-	-	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*PZ18-133*	*PZ18-133*	*PZ18-195*	*PZ18-195*	*PZ18-195*	*SB18-204*	*TW-9*	*BH3-99*	*BH4-99*	*BH4-99*
Sample ID:		*WG-17303-100605-AB-0901*	*WG-17303-121405-AB-0920*	*WG-17303-062205-DR-0810*	*WG-17303-100605-AB-0897*	*WG-17303-121405-NR-0917*	*WG-17303-060605-DR-0742*	*TW-9*	*W-1190511-111999-SN-021*	*W-1190511-111999-SN-022*	*W-1190511-111999-SN-023*
Sample Date:		*10/06/2005*	*12/14/2005*	*06/22/2005*	*10/06/2005*	*12/14/2005*	*06/06/2005*	*09/12/1996*	*11/19/1999*	*11/19/1999*	*11/19/1999*
Sample Type:											*Duplicate*
Parameter:	*Units*										
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.56 U	0.25 U	0.63 U	1 U	-	-	-	-
Methyl acetate	mg/L	0.01 U	0.01 U	1.1 U	0.5 UJ	1.3 U	2 U	-	-	-	-
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.56 U	0.25 U	0.63 U	1 U	-	-	-	-
Methylene chloride	mg/L	0.005 U	0.005 U	0.56 U	0.011 J[eh]	0.63 U	1 U	-	-	-	-
m-Xylene	mg/L	0.002 U	0.002 U	-	0.1 U	0.25 U	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U	0.005 U
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
o-Xylene	mg/L	0.001 U	0.001 U	-	0.05 U	0.13 U	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Toluene	mg/L	0.0001 J	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.00089 J	0.0003 J	0.036 J	0.0096 J	0.019 J	0.039 J	0.035	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.11 U	0.05 UJ	0.13 U	0.2 U	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.022[eh]	0.0095[eh]	0.11 U	0.05 U	0.13 U	4.3[dehj]	0.221[deh]	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.11 U	0.05 U	0.13 U	0.2 U	-	-	-	-
Vinyl chloride	mg/L	0.00097 J	0.001 U	0.11[deh]	0.099[deh]	0.13 U	0.2 U	9.64[cdehi]	1.14[cdehi]	0.001 U	0.001 U
Xylenes (total)	mg/L	0.003 U	0.003 U	0.22 U	0.15 U	0.38 U	0.4 U	-	0.003 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*BH5-99*	*BH7-99*	*BH8-99*	*GS-7*	*GS-7*	*GS-7*	*GS-7*
Sample ID:		*W-1190511-111999-SN-024*	*W-1190511-111899-SN-019*	*W-1190511-111899-SN-018*	*WG-17303-062205-DR-0811*	*WG-17303-062205-DR-0812*	*WG-17303-100605-AB-0900*	*WG-17303-121405-NR-0921*
Sample Date:		*11/19/1999*	*11/18/1999*	*11/18/1999*	*06/22/2005*	*06/22/2005*	*10/06/2005*	*12/14/2005*
Sample Type:						*Duplicate*		
Parameter:	*Units*							
VOCs								
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	-	-	-	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	-	-	-	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Acetone	mg/L	-	-	-	R	R	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	-	-	-	0.005 U	0.005 U	0.00025 J	0.005 U
Carbon tetrachloride	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-
Chloroethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.0016	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	-	0.001 UJ	0.001 UJ	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***BH5-99***	***BH7-99***	***BH8-99***	***GS-7***	***GS-7***	***GS-7***	***GS-7***
Sample ID:		***W-1190511-111999-SN-024***	***W-1190511-111899-SN-019***	***W-1190511-111899-SN-018***	***WG-17303-062205-DR-0811***	***WG-17303-062205-DR-0812***	***WG-17303-100605-AB-0900***	***WG-17303-121405-NR-0921***
Sample Date:		***11/19/1999***	***11/18/1999***	***11/18/1999***	***06/22/2005***	***06/22/2005***	***10/06/2005***	***12/14/2005***
Sample Type:						***Duplicate***		
Parameter:	***Units***							
Isopropyl benzene	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	-	-	-	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	0.002 U	0.002 U
Naphthalene	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	-
N-Propylbenzene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	0.001 U	0.001 U
Styrene	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00069 J	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.0108[eh]	0.0012 U	0.0013 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.003 U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Contact Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	ID	ID	30	ID	0.32	96	1100	0.077	15	ID
1,1,1-Trichloroethane	mg/L	1300	ID	1300	0.089	0.2	1300	1330	0.2	660	1.6
1,1,2,2-Tetrachloroethane	mg/L	ID	ID	4.7	0.078	0.035	77	2970	0.0085	12	1.8
1,1,2-Trichloroethane	mg/L	ID	-	21	0.33	0.005	110	4420	0.005	17	6.4
1,1-Dichloroethane	mg/L	ID	380	2400	0.74	2.5	2300	5060	0.88	1000	13
1,1-Dichloroethene	mg/L	140	97	11	0.13	0.007	1.3	2250	0.007	0.2	2.3
1,2,3-Trichloropropane	mg/L	ID	-	84	-	0.12	180	1900	0.042	83	-
1,2,4-Trichlorobenzene	mg/L	300	-	19	0.099	0.07	300	300	0.07	300	0.2
1,2,4-Trimethylbenzene	mg/L	ID	56	56	0.017	0.063	56	55.89	0.063	56	0.31
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ID	-	0.39	-	0.0002	1.2	1.23	0.0002	1.2	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ID	ID	0.025	0.0057	0.00005	15	4200	0.00005	2.4	0.28
1,2-Dichlorobenzene	mg/L	160	-	160	0.013	0.6	160	156	0.6	160	0.24
1,2-Dichloroethane	mg/L	ID	2500	19	0.36	0.005	59	8520	0.005	9.6	16
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	19
1,2-Dichloropropane	mg/L	2800	550	16	0.23	0.005	36	2800	0.005	16	4
1,3,5-Trimethylbenzene	mg/L	ID	ID	61	0.045	0.072	61	61.15	0.072	61	0.81
1,3-Dichlorobenzene	mg/L	ID	ID	2	0.028	0.019	41	111	0.0066	18	0.2
1,3-Dichloropropene	mg/L	ID	130	5.5	0.009	0.035	26	2800	0.0085	3.9	0.16
1,4-Dichlorobenzene	mg/L	ID	-	6.4	0.017	0.075	74	73.8	0.075	16	0.21
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	240000	ID	240000	2.2	38	240000	240000	13	240000	40
2-Hexanone	mg/L	ID	-	5200	ID	2.9	8700	16000	1	4200	ID
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	20000	ID	13000	ID	5.2	20000	20000	1.8	20000	ID
Acetone	mg/L		15000	31000	1.7	2.1		1000000	0.73		30
Benzene	mg/L	67	68	11	0.2	0.005	35	1750	0.005	5.6	1.9
Bromodichloromethane	mg/L	ID	ID	14	ID	0.08	37	6740	0.08	4.8	ID
Bromoform	mg/L	ID	ID	140	ID	0.08	3100	3100	0.08	470	ID
Bromomethane (Methyl bromide)	mg/L	ID	ID	70	0.035	0.029	9	14500	0.01	4	0.64
Carbon disulfide	mg/L	ID	13	1200	ID	2.3	550	1190	0.8	250	ID
Carbon tetrachloride	mg/L	96	ID	4.6	0.045	0.005	2.4	793	0.005	0.37	1.4
Chlorobenzene	mg/L	ID	160	86	0.025	0.1	470	472	0.1	210	0.45
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	ID
Chloroethane	mg/L	ID	110	440	1.1	1.7	5700	5740	0.43	5700	20
Chloroform (Trichloromethane)	mg/L	ID	ID	150	0.35	0.08	180	7920	0.08	28	11
Chloromethane (Methyl chloride)	mg/L	210	36	490	ID	1.1	45	6340	0.26	8.6	ID
cis-1,2-Dichloroethene	mg/L	ID	530	200	0.62	0.07	210	3500	0.07	93	11
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	ID
Dibromochloromethane	mg/L	ID	ID	18	ID	0.08	110	2600	0.08	14	ID
Dibromomethane	mg/L	ID	ID	530	-	0.23	ID	11000	0.08	ID	-
Dichlorodifluoromethane (CFC-12)	mg/L	ID	ID	300	ID	4.8	300	300	1.7	220	ID
Ethyl ether	mg/L	61000	650	35000	ID	0.01	61000	61000	0.01	61000	ID
Ethylbenzene	mg/L	170	43	170	0.018	0.074	170	169	0.074	110	0.32
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC ***Sample Location:*** ***Sample ID:*** ***Sample Date:*** ***Sample Type:***		*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Contact Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*
Isopropyl benzene	mg/L	ID	29	56	0.028	2.3	56	56	0.8	56	0.5
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	ID	ID	610	7.1	0.04	47000	46800	0.04	47000	420
Methylene chloride	mg/L	ID	ID	220	1.5	0.005	1400	17000	0.005	220	17
m-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-
Naphthalene	mg/L	31	-	31	0.011	1.5	31	31	0.52	31	0.2
N-Propylbenzene	mg/L	ID	ID	15	ID	0.23	ID	-	0.08	ID	ID
o-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-
Styrene	mg/L	310	140	9.7	0.08	0.1	310	310	0.1	170	2.9
Tetrachloroethene	mg/L	200	ID	12	0.06	0.005	170	200	0.005	25	2.9
Toluene	mg/L	ID	61	530	0.27	0.79	530	526	0.79	530	2.6
trans-1,2-Dichloroethene	mg/L	ID	230	220	1.5	0.1	200	6300	0.1	85	28
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1100	ID	22	0.2	0.005	97	1100	0.005	15	3.5
Trichlorofluoromethane (CFC-11)	mg/L	1100	ID	1100	-	7.3	1100	1100	2.6	1100	-
Trifluorotrichloroethane (Freon 113)	mg/L	170	ID	170	0.032	170	170	170	170	170	0.57
Vinyl chloride	mg/L	ID	33	1	0.013	0.002	13	2760	0.002	1.1	17
Xylenes (total)	mg/L	190	70	190	0.041	0.28	190	186	0.28	190	0.73

Notes:
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*
Sample ID:		*WG-17303-031006-NR-0954*	*GW-17303-062806-EV-005*	*WG-17303-100306-LA-042*	*WG-17303-120706-EV-028*	*WG-17303-031207-EV-030*	*WG-17303-060607-EV-017*	*WG-17303-090707-EV-029*	*GW-17303-120607-DR-028*	*WG-17303-032708-MC-031*
Sample Date:		*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/07/2006*	*03/12/2007*	*06/06/2007*	*09/07/2007*	*12/06/2007*	*03/27/2008*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.02 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.001 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.001 U	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.00069 J	0.1 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 UJ	0.2 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.025 U	0.1 U	0.0048 J	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 UJ	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.02 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.00058 J	0.0011 J	0.0011	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 UJ	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*
Sample ID:		*WG-17303-031006-NR-0954*	*GW-17303-062806-EV-005*	*WG-17303-100306-LA-042*	*WG-17303-120706-EV-028*	*WG-17303-031207-EV-030*	*WG-17303-060607-EV-017*	*WG-17303-090707-EV-029*	*GW-17303-120607-DR-028*	*WG-17303-032708-MC-031*
Sample Date:		*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/07/2006*	*03/12/2007*	*06/06/2007*	*09/07/2007*	*12/06/2007*	*03/27/2008*
Sample Type:										
Isopropyl benzene	mg/L	0.005 U	0.02 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.04 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.02 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.02 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 UJ	0.004 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.004 U	0.0007 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.004 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.00076 J	0.004 U	**0.015**[ch]	0.0016	0.001 U	0.0015	0.00075 J	0.00036 J	0.0019
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	**0.12 J**[deh]	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.002 UJ	0.008 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample ID:		*WG-17303-061908-DR-027*	*WG-17303-092408-DR-046*	*MW-4*	*BBLMW-4*	*GW-17303-112602-MM-155*	*GW-17303-052804-DR-353*	*WG-17303-030906-NR-0973*	*WG-17303-062906-NRS-007*	*WG-17303-100306-LA-043*	*WG-17303-100306-LA-044*
Sample Date:		*06/19/2008*	*09/24/2008*	*04/24/1996*	*02/01/1997*	*11/26/2002*	*05/28/2004*	*03/09/2006*	*06/29/2006*	*10/03/2006*	*10/03/2006*
Sample Type:											*Duplicate*
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 UJ	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	-	-	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	-	-	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	-	-	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	-	-	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ
Acetone	mg/L	0.025 U	0.025 U	-	-	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 UJ	0.001 UJ
Bromoform	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.014	0.0085	0.001 U	0.001 U	0.00028 J	0.00026 J	0.00031 J	0.00033 J
cis-1,3-Dichloropropene	mg/L	0.001 UJ	0.001 U	-	-	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 UJ	0.001 UJ
Cyclohexane	mg/L	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	0.001 U	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	0.02 U	-	-	-	-	-
Ethylbenzene	mg/L	0.001 UJ	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ
Iodomethane	mg/L	-	-	-	-	0.01 U	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample ID:		*WG-17303-061908-DR-027*	*WG-17303-092408-DR-046*	*MW-4*	*BBLMW-4*	*GW-17303-112602-MM-155*	*GW-17303-052804-DR-353*	*WG-17303-030906-NR-0973*	*WG-17303-062906-NRS-007*	*WG-17303-100306-LA-043*	*WG-17303-100306-LA-044*
Sample Date:		*06/19/2008*	*09/24/2008*	*04/24/1996*	*02/01/1997*	*11/26/2002*	*05/28/2004*	*03/09/2006*	*06/29/2006*	*10/03/2006*	*10/03/2006*
Sample Type:											*Duplicate*
Isopropyl benzene	mg/L	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.01 U	-	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	0.005 U	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	0.005 U	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ
Toluene	mg/L	0.001 U	0.001 U	-	0.0014	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 UJ	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	0.05 U	-	-	-	-	-
Trichloroethene	mg/L	0.00051 J	0.00058 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.001 U	0.007[eh]	0.0081[eh]	0.001 U	0.00029 J	0.00031 J	0.001 U	0.00031 J	0.00026 J
Xylenes (total)	mg/L	0.002 U	0.002 U	-	0.0017	0.003 U	0.002 U	0.002 UJ	0.002 U	0.002 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-5*
Sample ID:		*WG-17303-120606-JJ-025*	*WG-17303-030807-JJ-009*	*WG-17303-060607-EV-020*	*WG-17303-090607-EV-019*	*GW-17303-120607-DR-030*	*WG-17303-032708-MC-027*	*WG-17303-061908-CB-024*	*WG-17303-092308-DR-036*	*MW-5*
Sample Date:		*12/06/2006*	*03/08/2007*	*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*	*04/24/1996*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	-
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.1 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
1,2,4-Trimethylbenzene	mg/L	-	-	0.001 U	0.001 U	0.001 U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,3,5-Trimethylbenzene	mg/L	-	-	0.001 U	0.001 U	0.001 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	-
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	-
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
cis-1,2-Dichloroethene	mg/L	0.00038 J	0.00025 J	0.00028 J	0.00037 J	0.00038 J	0.00025 J	0.00032 J	0.00033 J	1.4 deh
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	-
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-5*
Sample ID:		*WG-17303-120606-JJ-025*	*WG-17303-030807-JJ-009*	*WG-17303-060607-EV-020*	*WG-17303-090607-EV-019*	*GW-17303-120607-DR-030*	*WG-17303-032708-MC-027*	*WG-17303-061908-CB-024*	*WG-17303-092308-DR-036*	*MW-5*
Sample Date:		*12/06/2006*	*03/08/2007*	*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*	*04/24/1996*
Sample Type:										
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.1 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.00078 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00055 J	0.00053 J	0.1 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Vinyl chloride	mg/L	0.001 U	0.0003 J	0.00038 J	0.0003 J	0.00028 J	0.00022 J	0.00037 J	0.00036 J	2.3[cdehi]
Xylenes (total)	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 UJ	0.002 U	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-5*	*MW-5*	*MW-5*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*
Sample ID:		*17303-062603-HH-MW5-205*	*GW-17303-120303-DCR-277*	*GW-17303-030106-NR-0935*	*MW-12*	*GW-17303-112502-MM-141*	*GW-17303-012804-MM-280*	*GW-17303-012804-MM-281*	*WG-17303-070706-EV-031*	*WG-17303-100506-NRS-061*
Sample Date:		*06/26/2003*	*12/03/2003*	*03/01/2006*	*09/17/1996*	*11/25/2002*	*01/28/2004*	*01/28/2004*	*07/07/2006*	*10/05/2006*
Sample Type:								*Duplicate*		
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,1-Dichloroethane	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,1-Dichloroethene	mg/L	0.013 eh	0.2 U	0.12 U	0.001 U	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,2,3-Trichloropropane	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.001 U	1 U	0.62 U	-	0.001 U	0.042 U	0.042 U	0.083 U	0.12 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	0.2 U	0.12 U	-	-	0.0083 U	0.0083 U	0.017 U	0.025 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,2-Dichloroethane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	5 U	3.1 U	-	0.025 U	0.21 U	0.21 U	0.0067 J	0.62 U
2-Hexanone	mg/L	0.05 U	10 U	6.2 U	-	0.05 U	0.42 U	0.42 U	0.83 U	1.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	10 U	6.2 U	-	0.05 U	0.42 U	0.42 U	0.83 U	1.2 U
Acetone	mg/L	0.025 U	5 U	3.1 U	-	0.025 U	0.21 U	0.21 U	0.42 U	0.62 U
Benzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Bromodichloromethane	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Bromoform	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Carbon disulfide	mg/L	0.005 U	1 U	0.62 U	-	0.005 U	0.042 U	0.042 U	0.083 UJ	0.12 U
Carbon tetrachloride	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Chlorobenzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Chlorobromomethane	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
Chloroethane	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.2 U	R	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
cis-1,2-Dichloroethene	mg/L	3.4 deh	4 deh	3 J deh	0.015	0.014	0.0082 J	0.009	0.024 J	0.083 J eh
cis-1,3-Dichloropropene	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 UJ
Cyclohexane	mg/L	-	0.2 U	0.12 UJ	-	-	0.0083 U	0.0083 U	0.017 UJ	0.025 U
Dibromochloromethane	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Dibromomethane	mg/L	0.001 U	-	-	-	0.001 U	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 UJ	0.025 U
Ethyl ether	mg/L	0.02 U	-	-	-	0.02 U	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
Iodomethane	mg/L	0.01 U	-	-	-	0.01 U	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-5*	*MW-5*	*MW-5*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*
Sample ID:		*17303-062603-HH-MW5-205*	*GW-17303-120303-DCR-277*	*GW-17303-030106-NR-0935*	*MW-12*	*GW-17303-112502-MM-141*	*GW-17303-012804-MM-280*	*GW-17303-012804-MM-281*	*WG-17303-070706-EV-031*	*WG-17303-100506-NRS-061*
Sample Date:		*06/26/2003*	*12/03/2003*	*03/01/2006*	*09/17/1996*	*11/25/2002*	*01/28/2004*	*01/28/2004*	*07/07/2006*	*10/05/2006*
Sample Type:								*Duplicate*		
Isopropyl benzene	mg/L	0.005 U	1 U	0.62 U	-	0.005 U	0.042 U	0.042 U	0.083 U	0.12 U
Methyl acetate	mg/L	-	2 U	1.2 U	-	-	0.083 U	0.083 U	0.17 U	0.25 U
Methyl cyclohexane	mg/L	-	0.2 U	0.12 UJ	-	-	0.0083 U	0.0083 U	0.017 UJ	0.025 U
Methyl tert butyl ether (MTBE)	mg/L	-	1 U	0.62 U	-	-	0.042 U	0.042 U	0.083 U	0.12 U
Methylene chloride	mg/L	0.005 U	1 U	0.62 U	-	0.005 U	0.042 U	0.042 U	0.083 UJ	0.12 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	-	-	-	0.005 U	-	-	-	-
N-Propylbenzene	mg/L	0.005 U	-	-	-	0.005 U	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.2 U	0.12 UJ	-	0.001 U	0.0083 U	0.0083 U	0.017 UJ	0.025 U
Tetrachloroethene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 UJ
Toluene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
trans-1,2-Dichloroethene	mg/L	0.2 U	0.12 J[eh]	0.096 J	0.001 U	0.001 U	0.0083 U	0.0083 U	0.017 UJ	0.0043 J
trans-1,3-Dichloropropene	mg/L	0.001 U	0.2 U	0.12 U	-	0.001 U	0.0083 U	0.0083 U	0.017 U	0.025 U
trans-1,4-Dichloro-2-butene	mg/L	0.05 U	-	-	-	0.05 U	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.2 U	0.12 U	0.088[eh]	0.14[eh]	0.22[deh]	0.22[deh]	0.35[deh]	0.69[deh]
Trichlorofluoromethane (CFC-11)	mg/L	-	0.2 U	0.12 U	-	-	0.0083 U	0.0083 U	0.017 U	0.025 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	0.2 U	0.12 U	-	-	0.0083 U	0.0083 U	0.017 U	0.025 U
Vinyl chloride	mg/L	7.2[cdehi]	5.3[cdehi]	3.2 J[cdehi]	0.001 U	0.001 U	0.012[eh]	0.012[eh]	0.017 U	0.025 U
Xylenes (total)	mg/L	0.003 U	0.4 U	0.25 U	-	0.003 U	0.017 U	0.017 U	0.033 UJ	0.05 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-13*
Sample ID:		*WG-17303-120706-DK-029*	*WG-17303-030807-NRS-012*	*WG-17303-060507-EV-010*	*WG-17303-090507-DR-005*	*WG-17303-120407-DR-001*	*WG-17303-032508-CB-014*	*WG-17303-061808-DR-007*	*WG-17303-092308-CB-033*	*MW-13*
Sample Date:		*12/07/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*09/17/1996*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,1,2,2-Tetrachloroethane	mg/L	0.017 U	0.022 U	0.0091 UJ	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 UJ	-
1,1,2-Trichloroethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,1-Dichloroethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,1-Dichloroethene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.083 U	0.11 U	0.045 U	0.045 U	0.05 U	0.14 U	0.025 U	0.17 U	-
1,2,4-Trimethylbenzene	mg/L	-	-	0.0091 U	0.0091 U	0.01 U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,2-Dichlorobenzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,2-Dichloroethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,3,5-Trimethylbenzene	mg/L	-	-	0.0091 U	0.0091 U	0.01 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.42 U	0.56 U	0.23 U	0.23 U	0.25 U	0.71 U	0.12 U	0.83 U	-
2-Hexanone	mg/L	0.83 U	1.1 U	0.45 U	0.45 U	0.5 U	1.4 U	0.25 U	1.7 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.83 U	1.1 U	0.45 UJ	0.45 U	0.5 U	1.4 U	0.25 U	1.7 U	-
Acetone	mg/L	0.42 U	0.56 U	0.23 U	0.23 U	0.25 U	0.71 U	0.12 U	0.83 U	-
Benzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Bromodichloromethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Bromoform	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Bromomethane (Methyl bromide)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Carbon disulfide	mg/L	0.083 U	0.11 U	0.045 U	0.045 U	0.05 U	0.14 U	0.025 U	0.17 U	-
Carbon tetrachloride	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Chlorobenzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 UJ	0.005 U	0.033 U	-
Chloroform (Trichloromethane)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Chloromethane (Methyl chloride)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
cis-1,2-Dichloroethene	mg/L	0.028	0.027	0.035	0.039	**0.12**[ch]	**0.2**[ch]	**0.1**[ch]	**0.84**[deh]	0.001 U
cis-1,3-Dichloropropene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 UJ	0.033 U	-
Cyclohexane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Dibromochloromethane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.017 U	0.022 U	0.0091 UJ	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 UJ	0.033 U	-
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-13*
Sample ID:		*WG-17303-120706-DK-029*	*WG-17303-030807-NRS-012*	*WG-17303-060507-EV-010*	*WG-17303-090507-DR-005*	*WG-17303-120407-DR-001*	*WG-17303-032508-CB-014*	*WG-17303-061808-DR-007*	*WG-17303-092308-CB-033*	*MW-13*
Sample Date:		*12/07/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*09/17/1996*
Sample Type:										
Isopropyl benzene	mg/L	0.083 U	0.11 U	0.045 U	0.045 U	0.05 U	0.14 U	0.025 U	0.17 U	-
Methyl acetate	mg/L	0.17 U	0.22 U	0.091 UJ	0.091 U	0.1 U	0.29 U	0.05 U	0.33 U	-
Methyl cyclohexane	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Methyl tert butyl ether (MTBE)	mg/L	0.083 U	0.11 U	0.045 U	0.045 U	0.05 U	0.14 U	0.025 U	0.17 U	-
Methylene chloride	mg/L	0.083 U	0.11 U	0.045 U	0.045 U	0.05 U	0.01 J[eh]	0.025 U	0.074 J[eh]	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 UJ	0.033 U	-
Tetrachloroethene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Toluene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
trans-1,2-Dichloroethene	mg/L	0.017 U	0.022 U	0.0091 U	0.0018 J	0.0033 J	0.029 U	0.0036 J	0.033 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.62[deh]	0.56[deh]	0.36[deh]	0.27[deh]	0.36[deh]	0.94[deh]	0.2[eh]	8.7[dehj]	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.005 U	0.033 U	-
Vinyl chloride	mg/L	0.017 U	0.022 U	0.0091 U	0.0091 U	0.01 U	0.029 U	0.011[eh]	0.033 U	0.001 U
Xylenes (total)	mg/L	0.033 U	0.044 U	0.018 U	0.018 U	0.02 U	0.057 U	0.01 UJ	0.067 U	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-13*	*MW-13*	*MW-13*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*
Sample ID:		*GW-17303-112502-MM-137*	*GW-17303-112502-MM-139*	*GW-17303-012904-MM-289*	*MW-14*	*GW-17303-112502-MM-138*	*GW-17303-012904-MM-292*	*GW-17303-052804-DR-355*	*WG-17303-062305-DR-0822*	*WG-17303-062305-DR-0823*
Sample Date:		*11/25/2002*	*11/25/2002*	*01/29/2004*	*09/17/1996*	*11/25/2002*	*01/29/2004*	*05/28/2004*	*06/23/2005*	*06/23/2005*
Sample Type:			*Duplicate*							*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.001 U	0.001 U	0.005 U	-	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	-	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	-	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	-	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	-	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U	0.00029 J	0.00021 J
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.0029	0.001 U	0.001 U	0.00036 J	0.001 U	0.0018 U	0.0019
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.001 U	0.001 U	-	-	0.001 U	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.02 U	0.02 U	-	-	0.02 U	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	0.01 U	0.01 U	-	-	0.01 U	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW-13***	***MW-13***	***MW-13***	***MW-14***	***MW-14***	***MW-14***	***MW-14***	***MW-14***	***MW-14***
Sample ID:		***GW-17303-112502-MM-137***	***GW-17303-112502-MM-139***	***GW-17303-012904-MM-289***	***MW-14***	***GW-17303-112502-MM-138***	***GW-17303-012904-MM-292***	***GW-17303-052804-DR-355***	***WG-17303-062305-DR-0822***	***WG-17303-062305-DR-0823***
Sample Date:		***11/25/2002***	***11/25/2002***	***01/29/2004***	***09/17/1996***	***11/25/2002***	***01/29/2004***	***05/28/2004***	***06/23/2005***	***06/23/2005***
Sample Type:			***Duplicate***							***Duplicate***
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	-	-	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	-	-	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	0.002 U	0.002 U
Naphthalene	mg/L	0.005 U	0.005 U	-	-	0.005 U	-	-	-	-
N-Propylbenzene	mg/L	0.005 U	0.005 U	-	-	0.005 U	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Styrene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 J
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.05 U	0.05 U	-	-	0.05 U	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00026 J	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.001 U	0.0045[ch]	0.001 U	0.001 U	0.0012	0.001 U	0.0018	0.002
Xylenes (total)	mg/L	0.003 U	0.003 U	0.002 U	-	0.003 U	0.002 U	0.002 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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ft BGS - feet below ground surface
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*
Sample ID:		*WG-17303-100505-AB-0892*	*WG-17303-121305-NR-0911*	*WG-17303-030706-NR-0949*	*WG-17303-070606-EV-026*	*WG-17303-100406-NRS-058*	*WG-17303-120606-DK-017*	*WG-17303-030807-NRS-011*	*WG-17303-060507-EV-012*	*WG-17303-090607-NRS-017*
Sample Date:		*10/05/2005*	*12/13/2005*	*03/07/2006*	*07/06/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/06/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 UJ	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*
Sample ID:		*WG-17303-100505-AB-0892*	*WG-17303-121305-NR-0911*	*WG-17303-030706-NR-0949*	*WG-17303-070606-EV-026*	*WG-17303-100406-NRS-058*	*WG-17303-120606-DK-017*	*WG-17303-030807-NRS-011*	*WG-17303-060507-EV-012*	*WG-17303-090607-NRS-017*
Sample Date:		*10/05/2005*	*12/13/2005*	*03/07/2006*	*07/06/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/06/2007*
Sample Type:										
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	0.002 U	0.002 U	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.001 U	0.001 U	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.003 U	0.003 U	0.002 U	0.002 UJ	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*WG-17303-120507-DR-014*	*WG-17303-032508-MC-009*	*WG-17303-061808-DR-009*	*WG-17303-092308-CB-035*	*GW-17303-120103-DCR-243*	*GW-17303-040104-DCR-303*	*GW-17303-063004-DR-364*	*GW-17303-092204-DCR-634*	*GW-17303-120804-DCR-652*
Sample Date:		*12/05/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*12/01/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*WG-17303-120507-DR-014*	*WG-17303-032508-MC-009*	*WG-17303-061808-DR-009*	*WG-17303-092308-CB-035*	*GW-17303-120103-DCR-243*	*GW-17303-040104-DCR-303*	*GW-17303-063004-DR-364*	*GW-17303-092204-DCR-634*	*GW-17303-120804-DCR-652*
Sample Date:		*12/05/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*12/01/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*
Sample Type:										
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00018 J
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	**0.0037[eh]**	0.0012	0.00088 J	0.0019	**0.0039[eh]**
Xylenes (total)	mg/L	0.002 U	0.002 U	0.002 UJ	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*GW-17303-031005-DR-683*	*WG-17303-062305-DR-0824*	*WG-17303-100505-AB-0882*	*WG-17303-121305-NR-0905*	*WG-17303-030706-LA-0945*	*WG-17303-062906-NRS-008*	*WG-17303-100406-LA-051*	*WG-17303-120606-LA-024*	*WG-17303-030807-JJ-008*
Sample Date:		*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.025 U	0.0019 J	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.00022 J	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*GW-17303-031005-DR-683*	*WG-17303-062305-DR-0824*	*WG-17303-100505-AB-0882*	*WG-17303-121305-NR-0905*	*WG-17303-030706-LA-0945*	*WG-17303-062906-NRS-008*	*WG-17303-100406-LA-051*	*WG-17303-120606-LA-024*	*WG-17303-030807-JJ-008*
Sample Date:		*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*
Sample Type:										
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.00022 J	0.00046 J	0.005 U	0.005 U	0.00022 J	0.005 U	0.005 U
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.00066 J	0.001 U	0.0086 eh	0.019 deh	0.00065 J	0.00022 J	0.0066 eh	0.0062 eh	0.0018
Xylenes (total)	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-060607-DR-019*	*WG-17303-090607-EV-021*	*WG-17303-120507-DR-017*	*WG-17303-120507-DR-018*	*WG-17303-032608-MC-022*	*WG-17303-061808-DR-012*	*WG-17303-092308-DR-038*	*GW-17303-120103-DCR-244*	*GW-17303-120103-DCR-245*
Sample Date:		*06/06/2007*	*09/06/2007*	*12/05/2007*	*12/05/2007*	*03/26/2008*	*06/18/2008*	*09/23/2008*	*12/01/2003*	*12/01/2003*
Sample Type:					*Duplicate*					*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 UJ	0.71 U	0.83 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.012 U	3.6 U	4.2 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.062 U	18 U	21 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.12 U	36 U	42 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.12 U	36 U	42 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.062 U	18 U	21 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.012 U	3.6 U	4.2 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.0025 U	0.71 U	0.83 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Chloromethane (Methyl chloride)	mg/L	0.0002 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	15[dehj]	16[dehj]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.0025 U	0.71 U	0.83 U
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.0025 U	0.71 U	0.83 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-060607-DR-019*	*WG-17303-090607-EV-021*	*WG-17303-120507-DR-017*	*WG-17303-120507-DR-018*	*WG-17303-032608-MC-022*	*WG-17303-061808-DR-012*	*WG-17303-092308-DR-038*	*GW-17303-120103-DCR-244*	*GW-17303-120103-DCR-245*
Sample Date:		*06/06/2007*	*09/06/2007*	*12/05/2007*	*12/05/2007*	*03/26/2008*	*06/18/2008*	*09/23/2008*	*12/01/2003*	*12/01/2003*
Sample Type:					*Duplicate*					*Duplicate*
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.012 U	3.6 U	4.2 U
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.025 U	7.1 U	8.3 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.00035 J	0.0006 J	0.00065 J	0.005 U	0.00023 J	0.012 U	3.6 U	4.2 U
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.012 U	3.6 U	4.2 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.0025 U	0.71 U	0.83 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.39 J[eh]
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.71 U	0.83 U
Vinyl chloride	mg/L	0.00041 J	0.007[eh]	0.024[deh]	0.024[deh]	0.0053[eh]	0.021[deh]	0.035[deh]	19[cdefhij]	20[cdefhij]
Xylenes (total)	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 UJ	0.005 U	1.4 U	1.7 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*GW-17303-040104-DCR-305*	*GW-17303-063004-DR-370*	*GW-17303-092204-MM-639*	*GW-17303-120804-DCR-659*	*GW-17303-031005-DR-691*	*GW-17303-031005-DR-692*	*WG-17303-062305-DR-0828*	*WG-17303-100505-AB-0888*	*WG-17303-121305-NR-0908*
Sample Date:		*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*
Sample Type:							*Duplicate*			
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,1,2,2-Tetrachloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,1,2-Trichloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,1-Dichloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,1-Dichloroethene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.037 J[ch]	0.036 J[ch]	0.045 J[ch]	1.7 U	0.83 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.1 U	2.5 U	2.5 U	2.5 U	0.005 U	0.005 U	0.005 U	8.3 U	4.2 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,2-Dichlorobenzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,2-Dichloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	10 U	12 U	12 U	12 U	0.025 U	0.025 U	0.025 U	42 U	21 U
2-Hexanone	mg/L	21 U	25 U	25 U	25 U	0.05 U	0.05 U	0.05 U	83 U	42 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	21 U	25 U	25 U	25 U	0.05 U	0.05 U	0.05 U	83 U	42 U
Acetone	mg/L	10 U	12 U	12 U	12 U	0.025 U	0.025 U	0.025 U	8.2 J[deh]	21 U
Benzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.0043	0.0042	0.0057 J[ch]	1.7 U	0.83 U
Bromodichloromethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Bromoform	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Bromomethane (Methyl bromide)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Carbon disulfide	mg/L	2.1 U	2.5 U	2.5 U	2.5 U	0.005 U	0.005 U	0.0035 J	8.3 U	4.2 U
Carbon tetrachloride	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Chlorobenzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.0034	0.0024	0.001 U	1.7 U	0.83 U
Chloroform (Trichloromethane)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Chloromethane (Methyl chloride)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
cis-1,2-Dichloroethene	mg/L	11[deh]	9.7[deh]	13[dehj]	17[dehj]	6.4[deh]	6.5[deh]	11[deh]	17[dehj]	15[dehj]
cis-1,3-Dichloropropene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 UJ	0.83 U
Cyclohexane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Dibromochloromethane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*GW-17303-040104-DCR-305*	*GW-17303-063004-DR-370*	*GW-17303-092204-MM-639*	*GW-17303-120804-DCR-659*	*GW-17303-031005-DR-691*	*GW-17303-031005-DR-692*	*WG-17303-062305-DR-0828*	*WG-17303-100505-AB-0888*	*WG-17303-121305-NR-0908*
Sample Date:		*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*
Sample Type:							*Duplicate*			
Isopropyl benzene	mg/L	2.1 U	2.5 U	2.5 U	2.5 U	0.005 U	0.005 U	0.005 U	8.3 U	4.2 U
Methyl acetate	mg/L	4.2 U	5 U	5 U	5 U	0.01 U	0.01 U	0.01 U	17 UJ	8.3 U
Methyl cyclohexane	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Methyl tert butyl ether (MTBE)	mg/L	2.1 U	2.5 U	2.5 U	2.5 U	0.005 U	0.005 U	0.005 U	8.3 U	4.2 U
Methylene chloride	mg/L	2.1 U	2.5 U	2.5 U	2.5 U	0.005 U	0.005 U	0.005 U	8.3 U	4.2 U
m-Xylene	mg/L	-	-	-	-	0.002 U	0.002 U	0.002 U	3.3 U	1.7 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Styrene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Tetrachloroethene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Toluene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.00072 J	0.001 U	0.001 U	1.7 U	0.83 U
trans-1,2-Dichloroethene	mg/L	**0.29 J[eh]**	**0.27 J[eh]**	**0.33 J[eh]**	**0.44 J[eh]**	**0.26 J[eh]**	**0.24 J[eh]**	**0.43 J[eh]**	**0.48 J[eh]**	**0.49 J[eh]**
trans-1,3-Dichloropropene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 UJ	0.83 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Trichlorofluoromethane (CFC-11)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.42 U	0.5 U	0.5 U	0.5 U	0.001 U	0.001 U	0.001 U	1.7 U	0.83 U
Vinyl chloride	mg/L	**14[cdefhi]**	**13[cdehi]**	**15[cdefhi]**	**16[cdefhi]**	**13[cdehi]**	**13[cdehi]**	**14 J[cdefhi]**	**26[cdefhij]**	**15[cdefhi]**
Xylenes (total)	mg/L	0.83 U	1 U	1 U	1 U	0.003 U	0.003 U	0.003 U	5 U	2.5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-030706-AB-0947*	*WG-17303-063006-LA-014*	*WG-17303-063006-LA-015*	*WG-17303-100406-NRS-054*	*WG-17303-120606-LA-015*	*WG-17303-030907-NRS-021*	*WG-17303-030907-NRS-022*	*WG-17303-060607-DR-015*	*WG-17303-060607-DR-016*
Sample Date:		*03/07/2006*	*06/30/2006*	*06/30/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*03/09/2007*	*06/06/2007*	*06/06/2007*
Sample Type:				*Duplicate*				*Duplicate*		*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	mg/L	0.71 UJ	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 UJ	0.2 UJ
1,1,2-Trichloroethane	mg/L	0.71 UJ	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,1-Dichloroethane	mg/L	0.71 UJ	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,1-Dichloroethene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	3.6 U	0.21 U	0.2 U	1.7 U	1.7 U	2.5 U	2.5 U	1 U	1 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,2-Dichloroethane	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.2 U	0.2 U
1,3-Dichlorobenzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	18 U	0.031 J	0.025 J	8.3 U	8.3 U	12 U	12 U	5 U	5 U
2-Hexanone	mg/L	36 U	2.1 U	2 U	17 U	17 U	25 U	25 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	36 U	2.1 UJ	2 UJ	17 U	17 U	25 U	25 U	10 UJ	10 UJ
Acetone	mg/L	18 U	1 U	1 U	8.3 U	8.3 U	0.4 J	12 U	5 U	5 U
Benzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Bromodichloromethane	mg/L	0.71 UJ	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Bromoform	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Bromomethane (Methyl bromide)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Carbon disulfide	mg/L	3.6 U	0.21 U	0.2 U	1.7 U	1.7 U	2.5 U	2.5 U	1 U	1 U
Carbon tetrachloride	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Chlorobenzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Chloromethane (Methyl chloride)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/L	**9.3 J[deh]**	**0.66[deh]**	**0.79[deh]**	**13[dehj]**	**8.4[deh]**	**8.2[deh]**	**8[deh]**	**6.4[deh]**	**6.5[deh]**
cis-1,3-Dichloropropene	mg/L	0.71 UJ	0.042 UJ	0.04 UJ	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Cyclohexane	mg/L	0.71 U	0.042 UJ	0.04 UJ	0.33 UJ	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Dibromochloromethane	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.71 U	0.042 UJ	0.04 UJ	0.33 UJ	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-030706-AB-0947*	*WG-17303-063006-LA-014*	*WG-17303-063006-LA-015*	*WG-17303-100406-NRS-054*	*WG-17303-120606-LA-015*	*WG-17303-030907-NRS-021*	*WG-17303-030907-NRS-022*	*WG-17303-060607-DR-015*	*WG-17303-060607-DR-016*
Sample Date:		*03/07/2006*	*06/30/2006*	*06/30/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*03/09/2007*	*06/06/2007*	*06/06/2007*
Sample Type:				*Duplicate*				*Duplicate*		*Duplicate*
Isopropyl benzene	mg/L	3.6 U	0.21 U	0.2 U	1.7 U	1.7 U	2.5 U	2.5 U	1 U	1 U
Methyl acetate	mg/L	7.1 U	0.42 U	0.4 U	3.3 U	3.3 U	5 U	5 U	2 U	2 U
Methyl cyclohexane	mg/L	0.71 U	0.042 UJ	0.04 UJ	0.33 UJ	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Methyl tert butyl ether (MTBE)	mg/L	3.6 U	0.21 U	0.2 U	1.7 U	1.7 U	2.5 U	2.5 U	1 U	1 U
Methylene chloride	mg/L	3.6 U	0.21 U	0.2 U	1.7 U	1.7 U	2.5 U	2.5 U	1 U	1 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.71 UJ	0.042 UJ	0.04 UJ	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Tetrachloroethene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Toluene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	mg/L	**0.25 J[eh]**	0.022 J	0.027 J	**0.39[eh]**	**0.26 J[eh]**	**0.25 J[eh]**	**0.25 J[eh]**	**0.21[eh]**	**0.21[eh]**
trans-1,3-Dichloropropene	mg/L	0.71 UJ	0.042 UJ	0.04 UJ	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Trichlorofluoromethane (CFC-11)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.71 U	0.042 U	0.04 U	0.33 U	0.33 U	0.5 U	0.5 U	0.2 U	0.2 U
Vinyl chloride	mg/L	**19[cdefhij]**	**1.1[cdeh]**	**1.4[cdehi]**	**15[cdefhi]**	**9[cdehi]**	**11[cdehi]**	**11[cdehi]**	**7.6[cdehi]**	**7.7[cdehi]**
Xylenes (total)	mg/L	1.4 U	0.083 U	0.08 U	0.67 U	0.67 U	1 U	1 U	0.4 U	0.4 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
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NLL - Hazardous substance is not likely to leach under most soil conditions.
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R - Rejected value
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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-090707-DR-030*	*WG-17303-120507-DR-013*	*WG-17303-032608-CB-021*	*WG-17303-061808-DR-010*	*WG-17303-092308-CB-037*	*WG-17303-120908-CB-061*	*WG-17303-032409-LS-080*	*WG-17303-041310-CB-009*	*WG-17303-102510-DR-015*
Sample Date:		*09/07/2007*	*12/05/2007*	*03/26/2008*	*06/18/2008*	*09/23/2008*	*12/09/2008*	*03/24/2009*	*04/13/2010*	*10/25/2010*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 UJ	0.42 U	0.1 U	0.62 UJ	0.5 U
1,1,2-Trichloroethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,1-Dichloroethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
1,1-Dichloroethene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.5 U	2.1 U	1.7 U	1.2 U	3.1 U	2.1 U	0.5 U	3.1 U	2.5 U
1,2,4-Trimethylbenzene	mg/L	0.5 U	0.42 U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,2-Dichlorobenzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,2-Dichloroethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,3,5-Trimethylbenzene	mg/L	0.5 U	0.42 U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	12 U	10 U	8.3 U	6.2 U	16 U	10 U	2.5 U	16 UJ	12 U
2-Hexanone	mg/L	25 U	21 U	17 U	12 U	31 U	21 U	5 U	31 UJ	25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	25 U	21 U	17 U	12 U	31 U	21 U	5 U	31 UJ	25 U
Acetone	mg/L	12 U	10 U	8.3 U	6.2 U	16 U	10 U	2.5 U	16 U	12 U
Benzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Bromodichloromethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Bromoform	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Bromomethane (Methyl bromide)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Carbon disulfide	mg/L	2.5 U	2.1 U	1.7 U	1.2 U	3.1 U	2.1 U	0.5 U	3.1 U	2.5 U
Carbon tetrachloride	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Chlorobenzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.5 U	0.42 U	0.33 UJ	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Chloroform (Trichloromethane)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Chloromethane (Methyl chloride)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
cis-1,2-Dichloroethene	mg/L	**12**^{dehj}	**11**^{deh}	**6.8**^{deh}	**4.9**^{deh}	**8.6**^{deh}	**7.5**^{deh}	**2.6**^{deh}	**8.4**^{deh}	**10**^{deh}
cis-1,3-Dichloropropene	mg/L	0.5 U	0.42 U	0.33 U	0.25 UJ	0.62 U	0.42 UJ	0.1 U	0.62 U	0.5 U
Cyclohexane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Dibromochloromethane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 UJ	0.1 U	0.62 UJ	0.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.5 U	0.42 U	0.33 U	0.25 UJ	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-090707-DR-030*	*WG-17303-120507-DR-013*	*WG-17303-032608-CB-021*	*WG-17303-061808-DR-010*	*WG-17303-092308-CB-037*	*WG-17303-120908-CB-061*	*WG-17303-032409-LS-080*	*WG-17303-041310-CB-009*	*WG-17303-102510-DR-015*
Sample Date:		*09/07/2007*	*12/05/2007*	*03/26/2008*	*06/18/2008*	*09/23/2008*	*12/09/2008*	*03/24/2009*	*04/13/2010*	*10/25/2010*
Sample Type:										
Isopropyl benzene	mg/L	2.5 U	2.1 U	1.7 U	1.2 U	3.1 U	2.1 U	0.5 U	3.1 U	2.5 U
Methyl acetate	mg/L	5 U	4.2 U	3.3 U	2.5 U	6.2 U	4.2 U	1 U	6.2 UJ	5 U
Methyl cyclohexane	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Methyl tert butyl ether (MTBE)	mg/L	2.5 U	2.1 U	1.7 U	1.2 U	3.1 U	2.1 U	0.5 U	3.1 U	2.5 U
Methylene chloride	mg/L	2.5 U	2.1 U	1.7 U	1.2 U	3.1 U	2.1 U	0.5 U	3.1 U	0.23 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.5 U	0.42 U	0.33 U	0.25 UJ	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Tetrachloroethene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Toluene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
trans-1,2-Dichloroethene	mg/L	0.37 J[eh]	0.37 J[eh]	0.22 J[eh]	0.17 J[eh]	0.27 J[eh]	0.25 J[eh]	0.1	0.31 J[eh]	0.3 J[eh]
trans-1,3-Dichloropropene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Trichlorofluoromethane (CFC-11)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 UJ	0.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.5 U	0.42 U	0.33 U	0.25 U	0.62 U	0.42 U	0.1 U	0.62 U	0.5 U
Vinyl chloride	mg/L	15[cdefhi]	11[cdehi]	13[cdehi]	4.4[cdehi]	15[cdefhi]	14[cdefhi]	3.5[cdehi]	17 J[cdefhi]	11[cdehi]
Xylenes (total)	mg/L	1 U	0.83 U	0.67 U	0.5 UJ	1.2 U	0.83 U	0.2 U	1.2 U	1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*
Sample ID:		*GW-17303-120103-DCR-246*	*GW-17303-040104-DCR-306*	*GW-17303-063004-DR-369*	*GW-17303-092204-MM-640*	*GW-17303-120804-DCR-660*	*GW-17303-031005-DR-690*	*WG-17303-062305-DR-0827*	*WG-17303-100505-AB-0891*
Sample Date:		*12/01/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*
Sample Type:									
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,1,2,2-Tetrachloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,1,2-Trichloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,1-Dichloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,1-Dichloroethene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,2-Dichlorobenzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,2-Dichloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	1.2 U	0.83 U	0.83 U	1.9 U	1.7 U	0.025 U	1.6 U	4.2 U
2-Hexanone	mg/L	2.5 U	1.7 U	1.7 U	3.8 U	3.3 U	0.05 U	3.1 U	8.3 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.5 U	1.7 U	1.7 U	3.8 U	3.3 U	0.05 U	3.1 U	8.3 U
Acetone	mg/L	1.2 U	0.83 U	0.83 U	1.9 U	1.7 U	0.025 U	1.6 U	**0.85 J[h]**
Benzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Bromodichloromethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Bromoform	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Bromomethane (Methyl bromide)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Carbon disulfide	mg/L	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U
Carbon tetrachloride	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Chlorobenzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Chloroform (Trichloromethane)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Chloromethane (Methyl chloride)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
cis-1,2-Dichloroethene	mg/L	**2[deh]**	**1[deh]**	**0.84[deh]**	**1.5[deh]**	**1.3[deh]**	**0.66[deh]**	**0.87[deh]**	**1.4[deh]**
cis-1,3-Dichloropropene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 UJ
Cyclohexane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Dibromochloromethane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*
Sample ID:		*GW-17303-120103-DCR-246*	*GW-17303-040104-DCR-306*	*GW-17303-063004-DR-369*	*GW-17303-092204-MM-640*	*GW-17303-120804-DCR-660*	*GW-17303-031005-DR-690*	*WG-17303-062305-DR-0827*	*WG-17303-100505-AB-0891*
Sample Date:		*12/01/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*
Sample Type:									
Isopropyl benzene	mg/L	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U
Methyl acetate	mg/L	0.5 U	0.33 U	0.33 U	0.77 U	0.67 U	0.01 U	0.63 U	1.7 UJ
Methyl cyclohexane	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Methyl tert butyl ether (MTBE)	mg/L	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U
Methylene chloride	mg/L	0.25 U	0.17 U	0.17 U	0.38 U	0.33 U	0.005 U	0.31 U	0.83 U
m-Xylene	mg/L	-	-	-	-	-	0.002 U	0.13 U	0.33 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	0.001 U	0.063 U	0.17 U
Styrene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Tetrachloroethene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Toluene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.007 J	0.17 U
trans-1,2-Dichloroethene	mg/L	0.03 J	0.016 J	0.014 J	0.03 J	0.024 J	0.0008 J	0.025 J	0.04 J
trans-1,3-Dichloropropene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Trichlorofluoromethane (CFC-11)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.05 U	0.033 U	0.033 U	0.077 U	0.067 U	0.001 U	0.063 U	0.17 U
Vinyl chloride	mg/L	1.6 cdehi	0.89 deh	0.82 deh	2 cdehi	1.8 cdehi	1.2 cdehi	0.74 deh	2.5 cdehi
Xylenes (total)	mg/L	0.1 U	0.067 U	0.067 U	0.15 U	0.13 U	0.003 U	0.19 U	0.5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*
Sample ID:		*WG-17303-121305-AB-0909*	*WG-17303-121305-AB-0910*	*WG-17303-030706-NR-0946*	*WG-17303-070706-EV-033*	*WG-17303-100406-NRS-057*	*WG-17303-120606-LA-016*	*WG-17303-030907-NRS-026*	*WG-17303-060507-DR-011*	*WG-17303-090607-NRS-020*
Sample Date:		*12/13/2005*	*12/13/2005*	*03/07/2006*	*07/07/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*
Sample Type:			*Duplicate*							
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,1,2,2-Tetrachloroethane	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 UJ	0.033 U	0.05 U	0.062 U	0.04 UJ	0.056 U
1,1,2-Trichloroethane	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,1-Dichloroethane	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 UJ	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,1-Dichloroethene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.63 U	0.63 U	0.25 U	0.33 U	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.04 U	0.056 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,2-Dichlorobenzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,2-Dichloroethane	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.04 U	0.056 U
1,3-Dichlorobenzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	3.1 U	3.1 U	1.2 U	1.7 U	0.83 U	1.2 U	1.6 U	1 U	1.4 U
2-Hexanone	mg/L	6.3 U	6.3 U	2.5 U	3.3 U	1.7 U	2.5 U	3.1 U	2 U	2.8 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	6.3 U	6.3 U	2.5 U	3.3 U	1.7 U	2.5 U	3.1 U	2 U	2.8 U
Acetone	mg/L	3.1 U	3.1 U	1.2 U	1.7 U	0.83 U	1.2 U	1.6 U	1 U	1.4 U
Benzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Bromodichloromethane	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Bromoform	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Bromomethane (Methyl bromide)	mg/L	0.13 U	0.13 U	0.05 U	0.067 UJ	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Carbon disulfide	mg/L	0.63 U	0.63 U	0.25 U	0.33 UJ	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U
Carbon tetrachloride	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Chlorobenzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Chloroform (Trichloromethane)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Chloromethane (Methyl chloride)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
cis-1,2-Dichloroethene	mg/L	**1.4 deh**	**1.6 deh**	**0.63 J deh**	**0.94 J deh**	**1.5 deh**	**1.1 deh**	**0.83 deh**	**0.67 deh**	**0.84 deh**
cis-1,3-Dichloropropene	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Cyclohexane	mg/L	0.13 U	0.13 U	0.05 U	0.067 UJ	0.033 UJ	0.05 U	0.062 U	0.04 U	0.056 U
Dibromochloromethane	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.13 U	0.13 U	0.05 U	0.067 UJ	0.033 UJ	0.05 U	0.062 U	0.04 UJ	0.056 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***	***MW19-03***
Sample ID:		***WG-17303-121305-AB-0909***	***WG-17303-121305-AB-0910***	***WG-17303-030706-NR-0946***	***WG-17303-070706-EV-033***	***WG-17303-100406-NRS-057***	***WG-17303-120606-LA-016***	***WG-17303-030907-NRS-026***	***WG-17303-060507-DR-011***	***WG-17303-090607-NRS-020***
Sample Date:		***12/13/2005***	***12/13/2005***	***03/07/2006***	***07/07/2006***	***10/04/2006***	***12/06/2006***	***03/09/2007***	***06/05/2007***	***09/06/2007***
Sample Type:			***Duplicate***							
Isopropyl benzene	mg/L	0.63 U	0.63 U	0.25 U	0.33 U	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U
Methyl acetate	mg/L	1.3 U	1.3 U	0.5 U	0.67 U	0.33 U	0.5 U	0.62 U	0.4 UJ	0.56 U
Methyl cyclohexane	mg/L	0.13 U	0.13 U	0.05 U	0.067 UJ	0.033 UJ	0.05 U	0.062 U	0.04 U	0.056 U
Methyl tert butyl ether (MTBE)	mg/L	0.63 U	0.63 U	0.25 U	0.33 U	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U
Methylene chloride	mg/L	0.63 U	0.63 U	0.25 U	0.33 U	0.17 U	0.25 U	0.31 U	0.2 U	0.28 U
m-Xylene	mg/L	0.25 U	0.25 U	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.13 U	0.13 U	-	-	-	-	-	-	-
Styrene	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 UJ	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Tetrachloroethene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Toluene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
trans-1,2-Dichloroethene	mg/L	0.038 J	0.046 J	0.019 J	0.027 J	0.055	0.04 J	0.034 J	0.029 J	0.036 J
trans-1,3-Dichloropropene	mg/L	0.13 U	0.13 U	0.05 UJ	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Trichlorofluoromethane (CFC-11)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.13 U	0.13 U	0.05 U	0.067 U	0.033 U	0.05 U	0.062 U	0.04 U	0.056 U
Vinyl chloride	mg/L	1.5[cdehi]	1.6[cdehi]	1.1[cdeh]	1.7[cdehi]	2.6[cdehi]	1.5[cdehi]	1.4[cdehi]	1.3[cdehi]	1.4[cdehi]
Xylenes (total)	mg/L	0.38 U	0.38 U	0.1 U	0.13 UJ	0.067 U	0.1 U	0.12 U	0.08 U	0.11 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-04*	*MW19-06*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*WG-17303-120507-DR-015*	*WG-17303-032508-MC-010*	*GW-17303-120103-DCR-247*	*GW-17303-120103-DCR-248*	*GW-17303-120103-DCR-249*	*GW-17303-040104-DCR-304*	*GW-17303-063004-DR-367*	*GW-17303-092204-DCR-636*
Sample Date:		*12/05/2007*	*03/25/2008*	*12/01/2003*	*12/01/2003*	*12/01/2003*	*04/01/2004*	*06/30/2004*	*09/22/2004*
Sample Type:									
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,1,2-Trichloroethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,1-Dichloroethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,1-Dichloroethene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.42 U	0.25 U	0.005 U	0.14 U	2.5 U	1.7 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	mg/L	0.083 U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,2-Dichlorobenzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,2-Dichloroethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	mg/L	0.083 U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	2.1 U	1.2 U	0.025 U	0.71 U	12 U	8.3 U	12 U	12 U
2-Hexanone	mg/L	4.2 U	2.5 U	0.05 U	1.4 U	25 U	17 U	25 U	25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	4.2 U	2.5 U	0.05 U	1.4 U	25 U	17 U	25 U	25 U
Acetone	mg/L	2.1 U	1.2 U	0.025 U	0.71 U	12 U	8.3 U	12 U	12 U
Benzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Bromodichloromethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Bromoform	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Bromomethane (Methyl bromide)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Carbon disulfide	mg/L	0.42 U	0.25 U	0.005 U	0.14 U	2.5 U	1.7 U	2.5 U	2.5 U
Carbon tetrachloride	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Chlorobenzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.083 U	0.05 UJ	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Chloroform (Trichloromethane)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Chloromethane (Methyl chloride)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	mg/L	**1.3**[deh]	**0.81**[deh]	0.001 U	**0.16**[ch]	**12**[dehj]	**9.1**[deh]	**5.4**[deh]	**7.1**[deh]
cis-1,3-Dichloropropene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Cyclohexane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Dibromochloromethane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW19-03***	***MW19-03***	***MW19-04***	***MW19-06***	***MW19-07***	***MW19-07***	***MW19-07***	***MW19-07***
Sample ID:		***WG-17303-120507-DR-015***	***WG-17303-032508-MC-010***	***GW-17303-120103-DCR-247***	***GW-17303-120103-DCR-248***	***GW-17303-120103-DCR-249***	***GW-17303-040104-DCR-304***	***GW-17303-063004-DR-367***	***GW-17303-092204-DCR-636***
Sample Date:		***12/05/2007***	***03/25/2008***	***12/01/2003***	***12/01/2003***	***12/01/2003***	***04/01/2004***	***06/30/2004***	***09/22/2004***
Sample Type:									
Isopropyl benzene	mg/L	0.42 U	0.25 U	0.005 U	0.14 U	2.5 U	1.7 U	2.5 U	2.5 U
Methyl acetate	mg/L	0.83 U	0.5 U	0.01 U	0.29 U	5 U	3.3 U	5 U	5 U
Methyl cyclohexane	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Methyl tert butyl ether (MTBE)	mg/L	0.42 U	0.25 U	0.005 U	0.14 U	2.5 U	1.7 U	2.5 U	2.5 U
Methylene chloride	mg/L	0.42 U	0.25 U	0.005 U	0.14 U	2.5 U	1.7 U	2.5 U	2.5 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-
Styrene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Tetrachloroethene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Toluene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	mg/L	0.051 J	0.037 J	0.001 U	0.009 J	**0.36 J[eh]**	**0.26 J[eh]**	**0.15 J[eh]**	**0.23 J[eh]**
trans-1,3-Dichloropropene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Trichlorofluoromethane (CFC-11)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.083 U	0.05 U	0.001 U	0.029 U	0.5 U	0.33 U	0.5 U	0.5 U
Vinyl chloride	mg/L	**2.4[cdehi]**	**1.3[cdehi]**	0.001 U	**0.78[deh]**	**15[cdefhi]**	**11[cdehi]**	**11[cdehi]**	**12[cdehi]**
Xylenes (total)	mg/L	0.17 U	0.1 U	0.002 U	0.057 U	1 U	0.67 U	1 U	1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*GW-17303-120804-DCR-655*	*GW-17303-031005-DR-682*	*WG-17303-062305-DR-0825*	*WG-17303-100505-AB-0883*	*WG-17303-121305-NR-0904*	*WG-17303-030706-LA-0944*	*WG-17303-070506-EV-024*	*WG-17303-100406-NRS-053*	*WG-17303-120606-LA-023*
Sample Date:		*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*	*03/07/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,1,2,2-Tetrachloroethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
1,1,2-Trichloroethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
1,1-Dichloroethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
1,1-Dichloroethene	mg/L	0.5 U	0.019[eh]	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.5 U	0.005 U	1.6 U	0.5 U	5 U	2.5 U	3.6 U	1.7 U	1.7 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,2-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,2-Dichloroethane	mg/L	0.5 U	0.00012 J	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	12 U	0.025 U	7.8 U	2.5 U	25 U	12 U	18 U	8.3 U	8.3 U
2-Hexanone	mg/L	25 U	0.05 U	16 U	5 U	50 U	25 U	36 U	17 U	17 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	25 U	0.05 U	16 U	5 U	50 U	25 U	36 U	17 U	17 U
Acetone	mg/L	12 U	0.025 U	7.8 U	2.5 U	25 U	12 U	18 U	8.3 U	8.3 U
Benzene	mg/L	0.5 U	0.011[eh]	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Bromodichloromethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
Bromoform	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Bromomethane (Methyl bromide)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 UJ	0.33 U	0.33 U
Carbon disulfide	mg/L	2.5 U	0.005 U	1.6 U	0.5 U	5 U	2.5 U	3.6 UJ	1.7 U	1.7 U
Carbon tetrachloride	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Chlorobenzene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 UJ	0.33 U	0.33 U
Chloroform (Trichloromethane)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Chloromethane (Methyl chloride)	mg/L	0.5 U	0.00015 J	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
cis-1,2-Dichloroethene	mg/L	11[deh]	7.6[deh]	4[deh]	8.2[deh]	12[dehj]	6 J[deh]	9.3[deh]	9.2[deh]	5.6[deh]
cis-1,3-Dichloropropene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
Cyclohexane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 UJ	0.33 U
Dibromochloromethane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 UJ	0.33 UJ	0.33 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.5 U	0.001 U	0.13 J[deh]	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*GW-17303-120804-DCR-655*	*GW-17303-031005-DR-682*	*WG-17303-062305-DR-0825*	*WG-17303-100505-AB-0883*	*WG-17303-121305-NR-0904*	*WG-17303-030706-LA-0944*	*WG-17303-070506-EV-024*	*WG-17303-100406-NRS-053*	*WG-17303-120606-LA-023*
Sample Date:		*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*	*03/07/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*
Sample Type:										
Isopropyl benzene	mg/L	2.5 U	0.005 U	1.6 U	0.5 U	5 U	2.5 U	3.6 U	1.7 U	1.7 U
Methyl acetate	mg/L	5 U	0.01 U	3.1 U	1 U	10 U	5 U	7.1 U	3.3 U	3.3 U
Methyl cyclohexane	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 UJ	0.33 U
Methyl tert butyl ether (MTBE)	mg/L	2.5 U	0.005 U	1.6 U	0.5 U	5 U	2.5 U	3.6 U	1.7 U	1.7 U
Methylene chloride	mg/L	2.5 U	0.005 U	1.6 U	0.5 U	5 U	2.5 U	3.6 U	1.7 U	1.7 U
m-Xylene	mg/L	-	0.002 U	0.19 J	0.2 U	2 U	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	0.001 U	0.073 J	0.1 U	1 U	-	-	-	-
Styrene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
Tetrachloroethene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Toluene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
trans-1,2-Dichloroethene	mg/L	**0.36 J[eh]**	**0.3 J[eh]**	**0.15 J[eh]**	**0.13[eh]**	**0.36 J[eh]**	**0.16 J[eh]**	**0.21 J[eh]**	**0.23 J[eh]**	**0.15 J[eh]**
trans-1,3-Dichloropropene	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 UJ	0.71 U	0.33 U	0.33 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.5 U	**0.011[eh]**	0.31 U	**0.012 J[eh]**	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Trichlorofluoromethane (CFC-11)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.5 U	0.001 U	0.31 U	0.1 U	1 U	0.5 U	0.71 U	0.33 U	0.33 U
Vinyl chloride	mg/L	**17[cdefhi]**	**18[cdefhij]**	**5.2[cdehi]**	**13[cdehi]**	**18[cdefhij]**	**12[cdehi]**	**19[cdefhij]**	**18[cdefhij]**	**10[cdehi]**
Xylenes (total)	mg/L	1 U	0.003 U	**0.29 J[deh]**	0.3 U	3 U	1 U	1.4 U	0.67 U	0.67 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*WG-17303-030807-JJ-015*	*WG-17303-030807-JJ-016*	*WG-17303-060507-DR-007*	*WG-17303-090607-EV-023*	*WG-17303-090607-EV-024*	*WG-17303-120507-DR-019*	*WG-17303-032608-MC-017*	*WG-17303-032608-MC-018*	*WG-17303-061808-DR-013*
Sample Date:		*03/08/2007*	*03/08/2007*	*06/05/2007*	*09/06/2007*	*09/06/2007*	*12/05/2007*	*03/26/2008*	*03/26/2008*	*06/18/2008*
Sample Type:			*Duplicate*			*Duplicate*			*Duplicate*	
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.62 U	0.5 U	0.33 UJ	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,1,2-Trichloroethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,1-Dichloroethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,1-Dichloroethene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	3.1 U	2.5 U	1.7 U	3.1 U	3.1 U	3.1 U	3.6 U	3.1 U	2.5 U
1,2,4-Trimethylbenzene	mg/L	-	-	0.33 U	0.62 U	0.62 U	0.62 U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,2-Dichlorobenzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,2-Dichloroethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,3,5-Trimethylbenzene	mg/L	-	-	0.33 U	0.62 U	0.62 U	0.62 U	-	-	-
1,3-Dichlorobenzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	16 U	12 U	8.3 U	16 U	16 U	16 U	18 U	16 U	12 U
2-Hexanone	mg/L	31 U	25 U	17 U	31 U	31 U	31 U	36 U	31 U	25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	31 U	25 U	17 U	31 U	31 U	31 U	36 U	31 U	25 U
Acetone	mg/L	16 U	12 U	8.3 U	16 U	16 U	16 U	18 U	1 J[h]	12 U
Benzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Bromodichloromethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Bromoform	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Bromomethane (Methyl bromide)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Carbon disulfide	mg/L	3.1 U	2.5 U	1.7 U	3.1 U	3.1 U	3.1 U	3.6 U	3.1 U	2.5 U
Carbon tetrachloride	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Chlorobenzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 UJ	0.62 U	0.5 U
Chloroform (Trichloromethane)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Chloromethane (Methyl chloride)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
cis-1,2-Dichloroethene	mg/L	8[deh]	9.2[deh]	5.5[deh]	9.2[deh]	10[deh]	6.5[deh]	6.5[deh]	5.6[deh]	4.5[deh]
cis-1,3-Dichloropropene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Cyclohexane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Dibromochloromethane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.62 U	0.5 U	0.33 UJ	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*WG-17303-030807-JJ-015*	*WG-17303-030807-JJ-016*	*WG-17303-060507-DR-007*	*WG-17303-090607-EV-023*	*WG-17303-090607-EV-024*	*WG-17303-120507-DR-019*	*WG-17303-032608-MC-017*	*WG-17303-032608-MC-018*	*WG-17303-061808-DR-013*
Sample Date:		*03/08/2007*	*03/08/2007*	*06/05/2007*	*09/06/2007*	*09/06/2007*	*12/05/2007*	*03/26/2008*	*03/26/2008*	*06/18/2008*
Sample Type:			*Duplicate*			*Duplicate*			*Duplicate*	
Isopropyl benzene	mg/L	3.1 U	2.5 U	1.7 U	3.1 U	3.1 U	3.1 U	3.6 U	3.1 U	2.5 U
Methyl acetate	mg/L	6.2 U	5 U	3.3 UJ	6.2 U	6.2 U	6.2 U	7.1 U	6.2 U	5 U
Methyl cyclohexane	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Methyl tert butyl ether (MTBE)	mg/L	3.1 U	2.5 U	1.7 U	3.1 U	3.1 U	3.1 U	3.6 U	3.1 U	2.5 U
Methylene chloride	mg/L	3.1 U	2.5 U	1.7 U	3.1 U	3.1 U	3.1 U	3.6 U	3.1 U	0.17 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Tetrachloroethene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Toluene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
trans-1,2-Dichloroethene	mg/L	0.21 J[eh]	0.22 J[eh]	0.14 J[eh]	0.23 J[eh]	0.25 J[eh]	0.22 J[eh]	0.16 J[eh]	0.14 J[eh]	0.097 J
trans-1,3-Dichloropropene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Trichlorofluoromethane (CFC-11)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.62 U	0.5 U	0.33 U	0.62 U	0.62 U	0.62 U	0.71 U	0.62 U	0.5 U
Vinyl chloride	mg/L	18[cdefhij]	19[cdefhij]	11[cdehi]	19[cdefhij]	21[cdefhij]	19[cdefhij]	23[cdefhij]	18[cdefhij]	15[cdefhi]
Xylenes (total)	mg/L	1.2 U	1 U	0.67 U	1.2 U	1.2 U	1.2 U	1.4 U	1.2 U	1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-08*	*MW19-11*	*MW19-22*	*MW19-23*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-061808-DR-014*	*WG-17303-092308-CB-039*	*WG-17303-092308-CB-040*	*GW-17303-120103-DCR-253*	*GW-17303-120103-DCR-251*	*GW-17303-120303-DCR-268*	*GW-17303-120303-DCR-269*	*GW-17303-052804-DR-354*	*GW-17303-063004-DR-365*
Sample Date:		*06/18/2008*	*09/23/2008*	*09/23/2008*	*12/01/2003*	*12/01/2003*	*12/03/2003*	*12/03/2003*	*05/28/2004*	*06/30/2004*
Sample Type:		*Duplicate*		*Duplicate*						
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,1,2,2-Tetrachloroethane	mg/L	0.71 U	1 UJ	1 UJ	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,1,2-Trichloroethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,1-Dichloroethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,1-Dichloroethene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	3.6 U	5 U	5 U	5 U	1.7 U	0.005 U	0.005 U	0.5 U	1.2 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,2-Dichlorobenzene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,2-Dichloroethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	18 U	25 U	25 U	25 U	8.3 U	0.025 U	0.025 U	2.5 U	6.2 U
2-Hexanone	mg/L	36 U	50 U	50 U	50 U	17 U	0.05 U	0.05 U	5 U	12 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	36 U	50 U	50 U	50 U	17 U	0.05 U	0.05 U	5 U	12 U
Acetone	mg/L	18 U	25 U	25 U	25 U	8.3 U	0.025 U	0.025 U	2.5 U	6.2 U
Benzene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	**0.029 J[ch]**	0.25 U
Bromodichloromethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Bromoform	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Bromomethane (Methyl bromide)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Carbon disulfide	mg/L	3.6 U	5 U	5 U	5 U	1.7 U	0.005 U	0.005 U	0.5 U	1.2 U
Carbon tetrachloride	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Chlorobenzene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Chloroform (Trichloromethane)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Chloromethane (Methyl chloride)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
cis-1,2-Dichloroethene	mg/L	**4.4[deh]**	**9.3[deh]**	**8.9[deh]**	**9.3[deh]**	**7.7[deh]**	0.001 U	0.00064 J	**0.2[ch]**	**0.24 J[ch]**
cis-1,3-Dichloropropene	mg/L	0.71 UJ	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Cyclohexane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Dibromochloromethane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.71 UJ	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-08*	*MW19-11*	*MW19-22*	*MW19-23*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-061808-DR-014*	*WG-17303-092308-CB-039*	*WG-17303-092308-CB-040*	*GW-17303-120103-DCR-253*	*GW-17303-120103-DCR-251*	*GW-17303-120303-DCR-268*	*GW-17303-120303-DCR-269*	*GW-17303-052804-DR-354*	*GW-17303-063004-DR-365*
Sample Date:		*06/18/2008*	*09/23/2008*	*09/23/2008*	*12/01/2003*	*12/01/2003*	*12/03/2003*	*12/03/2003*	*05/28/2004*	*06/30/2004*
Sample Type:		*Duplicate*		*Duplicate*						
Isopropyl benzene	mg/L	3.6 U	5 U	5 U	5 U	1.7 U	0.005 U	0.005 U	0.5 U	1.2 U
Methyl acetate	mg/L	7.1 U	10 U	10 U	10 U	3.3 U	0.01 U	0.01 U	1 U	2.5 U
Methyl cyclohexane	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Methyl tert butyl ether (MTBE)	mg/L	3.6 U	5 U	5 U	5 U	1.7 U	0.005 U	0.005 U	0.5 U	1.2 U
Methylene chloride	mg/L	3.6 U	5 U	5 U	5 U	1.7 U	0.005 U	0.005 U	0.5 U	1.2 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.71 UJ	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Tetrachloroethene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Toluene	mg/L	0.71 U	1 U	1 U	0.6 J[d]	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
trans-1,2-Dichloroethene	mg/L	0.71 U	1 U	0.22 J[eh]	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
trans-1,3-Dichloropropene	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.71 U	1 U	1 U	1 U	0.15 J[ch]	0.001 U	0.001 U	0.1 U	0.25 U
Trichlorofluoromethane (CFC-11)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.71 U	1 U	1 U	1 U	0.33 U	0.001 U	0.001 U	0.1 U	0.25 U
Vinyl chloride	mg/L	15[cdefhi]	28[cdefhij]	26[cdefhij]	23[cdefhij]	8.4[cdehi]	0.001 U	0.001 U	3.6[cdehi]	7.8[cdehi]
Xylenes (total)	mg/L	1.4 UJ	2 U	2 U	2 U	0.67 U	0.002 U	0.002 U	0.2 U	0.5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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R - Rejected value
U - Not present at or above the associated value
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*GW-17303-063004-DR-366*	*GW-17303-092204-DCR-635*	*GW-17303-120804-DCR-653*	*GW-17303-120804-DCR-654*	*GW-17303-041305-DR-698*	*WG-17303-062305-DR-0826*	*WG-17303-100505-AB-0881*	*WG-17303-121305-NR-0903*
Sample Date:		*06/30/2004*	*09/22/2004*	*12/08/2004*	*12/08/2004*	*04/13/2005*	*06/23/2005*	*10/05/2005*	*12/13/2005*
Sample Type:		*Duplicate*			*Duplicate*				
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.00015 J	0.31 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.00025 J	0.31 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	1 U	1.2 U	1 U	1 U	0.005 U	1.6 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.00027 J	0.31 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	5 U	6.2 U	5 U	5 U	0.025 U	7.8 U	0.025 U	0.025 U
2-Hexanone	mg/L	10 U	12 U	10 U	10 U	0.05 U	16 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	10 U	12 U	10 U	10 U	0.05 U	16 U	0.05 U	0.05 U
Acetone	mg/L	5 U	6.2 U	5 U	5 U	0.025 U	7.8 U	0.025 U	0.025 U
Benzene	mg/L	0.2 U	**0.078 J^{eh}**	**0.052 J^{eh}**	**0.05 J^{eh}**	**0.036 J^{eh}**	**0.049 J^{eh}**	**0.06 J^{eh}**	**0.072 J^{eh}**
Bromodichloromethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Bromoform	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Carbon disulfide	mg/L	1 U	1.2 U	1 U	1 U	0.00017 J	1.6 U	0.005 U	0.041 J
Carbon tetrachloride	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	**0.29^{eh}**	**0.32^{eh}**	**0.31^{eh}**	**0.35^{eh}**	**0.24 J^{eh}**	**0.32^{eh}**	**0.5^{eh}**	**0.31 J^{eh}**
cis-1,3-Dichloropropene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	**0.12 J^{deh}**	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW19-24***	***MW19-24***	***MW19-24***	***MW19-24***	***MW19-24***	***MW19-24***	***MW19-24***	***MW19-24***
Sample ID:		***GW-17303-063004-DR-366***	***GW-17303-092204-DCR-635***	***GW-17303-120804-DCR-653***	***GW-17303-120804-DCR-654***	***GW-17303-041305-DR-698***	***WG-17303-062305-DR-0826***	***WG-17303-100505-AB-0881***	***WG-17303-121305-NR-0903***
Sample Date:		***06/30/2004***	***09/22/2004***	***12/08/2004***	***12/08/2004***	***04/13/2005***	***06/23/2005***	***10/05/2005***	***12/13/2005***
Sample Type:		***Duplicate***			***Duplicate***				
Isopropyl benzene	mg/L	1 U	1.2 U	1 U	1 U	0.005 U	1.6 U	0.005 U	0.005 U
Methyl acetate	mg/L	2 U	2.5 U	2 U	2 U	0.01 U	3.1 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	1 U	1.2 U	1 U	1 U	0.005 U	1.6 U	0.005 U	0.005 U
Methylene chloride	mg/L	1 U	1.2 U	1 U	1 U	0.005 U	1.6 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	0.002 U	0.32 J[ch]	0.002 U	0.002 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	0.001 U	0.1 J	0.001 U	0.001 U
Styrene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Toluene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.033 J	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.011	0.31 U	0.014	0.01
trans-1,3-Dichloropropene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.00013 J	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.2 U	0.25 U	0.2 U	0.2 U	0.001 U	0.31 U	0.001 U	0.001 U
Vinyl chloride	mg/L	7.2[cdehi]	6.9[cdehi]	7.7[cdehi]	7.2[cdehi]	5.7 J[cdehi]	7[cdehi]	11[cdehi]	8.8[cdehi]
Xylenes (total)	mg/L	0.4 U	0.5 U	0.4 U	0.4 U	0.003 U	0.46 J[deh]	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-030706-AB-0948*	*WG-17303-062906-NRS-009*	*WG-17303-100406-LA-052*	*WG-17303-120606-AF-021*	*WG-17303-120606-AF-022*	*WG-17303-030907-NRS-020*	*WG-17303-060607-DR-018*	*WG-17303-090607-EV-022*	*WG-17303-120507-DR-016*
Sample Date:		*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/06/2007*	*09/06/2007*	*12/05/2007*
Sample Type:						*Duplicate*				
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,1,2,2-Tetrachloroethane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,1,2-Trichloroethane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,1-Dichloroethane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,1-Dichloroethene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	1.2 U	0.31 U	0.25 U	0.42 U	0.45 U	0.62 U	0.14 U	0.36 U	2.1 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	0.029 U	0.071 U	0.42 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,2-Dichlorobenzene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,2-Dichloroethane	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	0.029 U	0.071 U	0.42 U
1,3-Dichlorobenzene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	6.2 U	1.6 U	1.2 U	2.1 U	2.3 U	3.1 U	0.71 U	1.8 U	10 U
2-Hexanone	mg/L	12 UJ	3.1 U	2.5 U	4.2 U	4.5 U	6.2 U	1.4 U	3.6 U	21 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	12 UJ	3.1 U	2.5 U	4.2 U	4.5 U	6.2 U	1.4 UJ	3.6 U	21 U
Acetone	mg/L	6.2 U	1.6 U	1.2 U	2.1 U	2.3 U	0.093 J	0.71 U	1.8 U	10 U
Benzene	mg/L	0.25 U	**0.041 J[eh]**	**0.053[eh]**	**0.037 J[eh]**	**0.04 J[eh]**	0.12 U	**0.034[eh]**	**0.061 J[eh]**	**0.1 J[eh]**
Bromodichloromethane	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Bromoform	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Bromomethane (Methyl bromide)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Carbon disulfide	mg/L	1.2 U	0.31 UJ	0.25 U	0.42 U	0.45 U	0.62 U	0.14 U	0.36 U	2.1 U
Carbon tetrachloride	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Chlorobenzene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Chloroform (Trichloromethane)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Chloromethane (Methyl chloride)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
cis-1,2-Dichloroethene	mg/L	**0.18 J[eh]**	**0.25[eh]**	**0.29[eh]**	**0.18[eh]**	**0.18[eh]**	**0.37[eh]**	**0.27[eh]**	**0.27[eh]**	**0.35 J[eh]**
cis-1,3-Dichloropropene	mg/L	0.25 UJ	0.062 UJ	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Cyclohexane	mg/L	0.25 U	0.062 UJ	0.05 UJ	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Dibromochloromethane	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.25 U	0.062 UJ	0.05 UJ	0.083 U	0.091 U	0.12 U	0.029 UJ	0.071 U	0.42 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-030706-AB-0948*	*WG-17303-062906-NRS-009*	*WG-17303-100406-LA-052*	*WG-17303-120606-AF-021*	*WG-17303-120606-AF-022*	*WG-17303-030907-NRS-020*	*WG-17303-060607-DR-018*	*WG-17303-090607-EV-022*	*WG-17303-120507-DR-016*
Sample Date:		*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/06/2007*	*09/06/2007*	*12/05/2007*
Sample Type:						*Duplicate*				
Isopropyl benzene	mg/L	1.2 U	0.31 U	0.25 U	0.42 U	0.45 U	0.62 U	0.14 U	0.36 U	2.1 U
Methyl acetate	mg/L	2.5 U	0.62 U	0.5 U	0.83 U	0.91 U	1.2 U	0.29 U	0.71 U	4.2 U
Methyl cyclohexane	mg/L	0.25 U	0.062 UJ	0.05 UJ	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Methyl tert butyl ether (MTBE)	mg/L	1.2 U	0.31 U	0.25 U	0.42 U	0.45 U	0.62 U	0.14 U	0.36 U	2.1 U
Methylene chloride	mg/L	1.2 U	0.31 U	0.25 U	0.42 U	0.45 U	0.62 U	0.14 U	0.36 U	2.1 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Tetrachloroethene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Toluene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
trans-1,2-Dichloroethene	mg/L	0.25 U	0.062 U	0.017 J	0.083 U	0.091 U	0.12 U	0.012 J	0.071 U	0.42 U
trans-1,3-Dichloropropene	mg/L	0.25 UJ	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Trichlorofluoromethane (CFC-11)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.25 U	0.062 U	0.05 U	0.083 U	0.091 U	0.12 U	0.029 U	0.071 U	0.42 U
Vinyl chloride	mg/L	**6.4 J^{cdehi}**	**3.5^{cdehi}**	**3.9^{cdehi}**	**2.9^{cdehi}**	**3.1^{cdehi}**	**2.7^{cdehi}**	**0.75^{deh}**	**2.2^{cdehi}**	**13^{cdehi}**
Xylenes (total)	mg/L	0.5 UJ	0.12 U	0.1 U	0.17 U	0.18 U	0.25 U	0.057 U	0.14 U	0.83 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-032508-MC-012*	*WG-17303-061808-DR-011*	*WG-17303-092308-CB-041*	*WG-17303-120908-CB-062*	*WG-17303-120908-CB-063*	*WG-17303-032409-CB-081*	*WG-17303-041310-CB-010*	*WG-17303-102510-DR-013*	*WG-17303-102510-DR-014*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/23/2008*	*12/09/2008*	*12/09/2008*	*03/24/2009*	*04/13/2010*	*10/25/2010*	*10/25/2010*
Sample Type:						*Duplicate*				*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.5 U	0.62 U	0.83 UJ	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
1,1,2-Trichloroethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,1-Dichloroethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
1,1-Dichloroethene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.5 U	3.1 U	4.2 U	1.7 U	1.7 U	0.017 U	1.7 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,2-Dichlorobenzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,2-Dichloroethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	12 U	16 U	21 U	8.3 U	8.3 U	0.083 U	8.3 U	12 U	12 U
2-Hexanone	mg/L	25 U	31 U	42 U	17 U	17 U	0.17 U	17 U	25 U	25 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	25 U	31 U	42 U	17 U	17 U	0.17 U	17 UJ	25 U	25 U
Acetone	mg/L	12 U	16 U	21 U	8.3 U	8.3 U	0.083 U	8.3 U	12 U	12 U
Benzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Bromodichloromethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Bromoform	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Bromomethane (Methyl bromide)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Carbon disulfide	mg/L	2.5 U	3.1 U	4.2 U	1.7 U	1.7 U	0.017 U	1.7 U	2.5 U	2.5 U
Carbon tetrachloride	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Chlorobenzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Chloroform (Trichloromethane)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Chloromethane (Methyl chloride)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	mg/L	**0.25 J[eh]**	**0.29 J[eh]**	**0.35 J[eh]**	**0.18 J[eh]**	**0.17 J[eh]**	0.0071	**0.17 J[eh]**	**0.23 J[eh]**	**0.24 J[eh]**
cis-1,3-Dichloropropene	mg/L	0.5 U	0.62 U	0.83 U	0.33 UJ	0.33 UJ	0.0033 U	0.33 U	0.5 U	0.5 U
Cyclohexane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Dibromochloromethane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.5 U	0.62 U	0.83 U	0.33 UJ	0.33 UJ	0.0033 U	0.33 UJ	0.5 U	0.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-032508-MC-012*	*WG-17303-061808-DR-011*	*WG-17303-092308-CB-041*	*WG-17303-120908-CB-062*	*WG-17303-120908-CB-063*	*WG-17303-032409-CB-081*	*WG-17303-041310-CB-010*	*WG-17303-102510-DR-013*	*WG-17303-102510-DR-014*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/23/2008*	*12/09/2008*	*12/09/2008*	*03/24/2009*	*04/13/2010*	*10/25/2010*	*10/25/2010*
Sample Type:						*Duplicate*				*Duplicate*
Isopropyl benzene	mg/L	2.5 U	3.1 U	4.2 U	1.7 U	1.7 U	0.017 U	1.7 U	2.5 U	2.5 U
Methyl acetate	mg/L	5 U	6.2 U	8.3 U	3.3 U	3.3 U	0.033 U	3.3 U	5 U	5 U
Methyl cyclohexane	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Methyl tert butyl ether (MTBE)	mg/L	2.5 U	3.1 U	4.2 U	1.7 U	1.7 U	0.017 U	1.7 U	2.5 U	2.5 U
Methylene chloride	mg/L	2.5 U	0.25 J[eh]	4.2 U	1.7 U	1.7 U	0.017 U	1.7 U	0.2 J[eh]	0.2 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Tetrachloroethene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Toluene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0022 J	0.33 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Trichlorofluoromethane (CFC-11)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 UJ	0.5 U	0.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.5 U	0.62 U	0.83 U	0.33 U	0.33 U	0.0033 U	0.33 U	0.5 U	0.5 U
Vinyl chloride	mg/L	13[cdehi]	14 J[cdefhi]	20[cdefhij]	13[cdehi]	13[cdehi]	0.067[deh]	12[cdehi]	13[cdehi]	14[cdefhi]
Xylenes (total)	mg/L	1 U	1.2 U	1.7 U	0.67 U	0.67 U	0.0067 U	0.67 U	1 U	1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*PW2-99*	*SB19-27*	*SB19-29*	*SB19-30*	*SB19-31*	*SB19-32*	*SB19-33*	*SB19-34*
Sample ID:		*W-1190511-120699-SN-029*	*GW-17303-022806-NR-0927*	*GW-17303-022806-NR-0931*	*GW-17303-022806-NR-0930*	*GW-17303-022806-NR-0929*	*GW-17303-022806-NR-0928*	*GW-17303-022806-NR-0934*	*GW-17303-022806-NR-0932*
Sample Date:		*12/06/1999*	*02/28/2006*	*02/28/2006*	*02/28/2006*	*02/28/2006*	*02/28/2006*	*02/28/2006*	*02/28/2006*
Sample Type:									
Parameter:	*Units*								
VOCs									
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,1-Dichloroethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,1-Dichloroethene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	-	0.012 U	4.2 U	8.3 U	0.31 U	0.25 U	1 U	0.5 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,2-Dichloroethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	0.00063 J	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.0015 J	21 U	42 U	1.6 U	1.2 U	5 U	2.5 U
2-Hexanone	mg/L	-	0.12 U	42 U	83 U	3.1 U	2.5 UJ	10 U	5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	-	0.12 U	42 U	83 U	3.1 U	2.5 U	10 U	5 U
Acetone	mg/L	-	0.062 U	21 U	42 U	1.6 U	1.2 U	5 U	2.5 U
Benzene	mg/L	0.001 U	**0.068 [ch]**	0.83 U	1.7 U	0.062 U	**0.025 J [ch]**	0.2 U	0.1 U
Bromodichloromethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Bromoform	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Bromomethane (Methyl bromide)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Carbon disulfide	mg/L	-	0.012 U	4.2 U	8.3 U	0.31 U	0.25 U	1 U	0.5 U
Carbon tetrachloride	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Chlorobenzene	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-
Chloroethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Chloroform (Trichloromethane)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Chloromethane (Methyl chloride)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.0011 J	**6.2 [deh]**	**5.5 [deh]**	**0.075 [ch]**	0.017 J	**4.8 [deh]**	**3.9 [deh]**
cis-1,3-Dichloropropene	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Cyclohexane	mg/L	-	0.00059 J	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Dibromochloromethane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***PW2-99***	***SB19-27***	***SB19-29***	***SB19-30***	***SB19-31***	***SB19-32***	***SB19-33***	***SB19-34***
Sample ID:		***W-1190511-120699-SN-029***	***GW-17303-022806-NR-0927***	***GW-17303-022806-NR-0931***	***GW-17303-022806-NR-0930***	***GW-17303-022806-NR-0929***	***GW-17303-022806-NR-0928***	***GW-17303-022806-NR-0934***	***GW-17303-022806-NR-0932***
Sample Date:		***12/06/1999***	***02/28/2006***	***02/28/2006***	***02/28/2006***	***02/28/2006***	***02/28/2006***	***02/28/2006***	***02/28/2006***
Sample Type:									
Isopropyl benzene	mg/L	-	0.012 U	4.2 U	8.3 U	0.31 U	0.25 U	1 U	0.5 U
Methyl acetate	mg/L	-	0.025 U	8.3 U	17 U	0.62 U	0.5 U	2 U	1 U
Methyl cyclohexane	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Methyl tert butyl ether (MTBE)	mg/L	-	0.012 U	4.2 U	8.3 U	0.31 U	0.25 U	1 U	0.5 U
Methylene chloride	mg/L	-	0.012 U	4.2 U	8.3 U	0.31 U	0.25 U	1 U	0.5 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-
Styrene	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Tetrachloroethene	mg/L	-	0.00062 J	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Toluene	mg/L	0.001 U	0.0009 J	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.0025 U	**0.14 J[eh]**	1.7 U	0.062 U	0.05 U	**0.18 J[eh]**	**0.21[eh]**
trans-1,3-Dichloropropene	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Trichlorofluoromethane (CFC-11)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	0.0025 U	0.83 U	1.7 U	0.062 U	0.05 U	0.2 U	0.1 U
Vinyl chloride	mg/L	0.001 U	**0.072[deh]**	**17[cdefhi]**	**44[bcdefhij]**	**1.7[cdehi]**	**1.5[cdehi]**	**6.6[cdehi]**	**2.8[cdehi]**
Xylenes (total)	mg/L	0.003 U	0.005 U	1.7 U	3.3 U	0.12 U	0.1 U	0.4 U	0.2 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*SB19-35*	*SB19-35*	*SB19-36*	*SB19-40*	*SB19-42*	*SB19-43*	*SB19-44*	*SB19-44*	*SB19-45*
Sample ID:		*GW-17303-030306-NR-0940*	*GW-17303-030306-NR-0941*	*GW-17303-030306-NR-0938*	*GW-17303-030306-NR-0939*	*GW-17303-030306-NR-0943*	*WG-17303-053107-DR-004*	*WG-17303-053107-DR-002*	*WG-17303-053107-DR-003*	*WG-17303-053107-DR-001*
Sample Date:		*03/03/2006*	*03/03/2006*	*03/03/2006*	*03/03/2006*	*03/03/2006*	*05/31/2007*	*05/31/2007*	*05/31/2007*	*05/31/2007*
Sample Type:			*Duplicate*						*Duplicate*	
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ
1,1,2-Trichloroethane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.12 U	0.12 U	0.25 dehi	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.62 U	0.62 U	1.2 U	1 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	3.1 U	3.1 U	6.2 U	5 U	1.2 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	6.2 U	6.2 U	12 U	10 U	2.5 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	6.2 U	6.2 U	12 U	10 U	2.5 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	3.1 U	3.1 U	6.2 U	5 U	1.2 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.12 U	0.12 U	0.25 U	0.19 J ch	0.053 ch	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.62 U	0.62 U	1.2 U	1 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	2.3 deh	2.3 deh	7.9 J deh	0.2 UJ	0.031 J	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.025 J d	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***SB19-35***	***SB19-35***	***SB19-36***	***SB19-40***	***SB19-42***	***SB19-43***	***SB19-44***	***SB19-44***	***SB19-45***
Sample ID:		***GW-17303-030306-NR-0940***	***GW-17303-030306-NR-0941***	***GW-17303-030306-NR-0938***	***GW-17303-030306-NR-0939***	***GW-17303-030306-NR-0943***	***WG-17303-053107-DR-004***	***WG-17303-053107-DR-002***	***WG-17303-053107-DR-003***	***WG-17303-053107-DR-001***
Sample Date:		***03/03/2006***	***03/03/2006***	***03/03/2006***	***03/03/2006***	***03/03/2006***	***05/31/2007***	***05/31/2007***	***05/31/2007***	***05/31/2007***
Sample Type:			***Duplicate***						***Duplicate***	
Isopropyl benzene	mg/L	0.62 U	0.62 U	1.2 U	1 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	1.2 U	1.2 U	2.5 U	2 U	0.5 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.62 U	0.62 U	1.2 U	1 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.62 U	0.62 U	1.2 U	1 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.12 U	0.12 U	0.25 UJ	0.2 UJ	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.12 U	0.12 U	0.25 U	0.18 J	0.085	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	**0.13**[eh]	**0.11 J**[eh]	**0.94**[eh]	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.12 U	0.12 U	0.25 U	0.2 U	0.05 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	**4.8 J**[cdehi]	**4.4**[cdehi]	**4**[cdehi]	**5.1**[cdehi]	**1.5**[cdehi]	0.001 U	**0.0024**[eh]	**0.0021**[eh]	0.001 U
Xylenes (total)	mg/L	0.25 U	0.25 U	0.5 U	0.4 U	**0.055 J**[d]	0.002 U	0.002 U	0.002 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 23*	*PAOC 23*
Sample Location:		***SB19-46***	***SB19-47***	***SB19-48***	***TW-10***	***TW-11***	***MW-7***	***MW-7***	***MW-7***	***MW-7***	***MW-7***	***MW-7***	***IW-2***	***IW-6***
Sample ID:		***WG-17303-053107-DR-005***	***WG-17303-053107-DR-006***	***WG-17303-053107-DR-007***	***TW-10***	***TW-11***	***MW-7***	***BBLMW-7***	***BBLMW-7***	***BBLMW-7***	***BBLMW-7***	***WG-17303-080805-DR-0837***	***GW-17303-112602-MM-148***	***WG-17303-080905-DR-0839***
Sample Date:		***05/31/2007***	***05/31/2007***	***05/31/2007***	***09/12/1996***	***09/12/1996***	***04/24/1996***	***02/01/1997***	***05/01/1997***	***08/01/1997***	***11/01/1997***	***08/08/2005***	***11/26/2002***	***08/09/2005***
Sample Type:														
Parameter:	***Units***													
VOCs														
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.001 U	-
1,1,1-Trichloroethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,1,2,2-Tetrachloroethane	mg/L	0.0025 UJ	0.02 UJ	0.02 UJ	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,1,2-Trichloroethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,1-Dichloroethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,1-Dichloroethene	mg/L	0.0025 U	0.02 U	0.02 U	0.002	0.001 U	0.05 U	-	-	0.001 U	0.001 U	0.017 U	0.077[ch]	1.7 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.001 U	-
1,2,4-Trichlorobenzene	mg/L	0.012 U	0.1 U	0.1 U	-	-	-	-	-	-	-	0.083 U	0.001 U	8.3 U
1,2,4-Trimethylbenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	-	0.001 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	-	1.7 U
1,2-Dichlorobenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,2-Dichloroethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	0.001 U	-	0.017 U	0.001 U	1.7 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,3,5-Trimethylbenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	-	0.001 U	-
1,3-Dichlorobenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.062 U	0.5 U	0.5 U	-	-	-	-	-	-	-	0.42 U	0.025 U	42 U
2-Hexanone	mg/L	0.12 U	1 U	1 UJ	-	-	-	-	-	-	-	0.83 U	0.05 U	83 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.12 U	1 U	1 UJ	-	-	-	-	-	-	-	0.83 U	0.05 U	83 U
Acetone	mg/L	0.062 U	0.5 U	0.5 U	-	-	-	-	-	-	-	0.42 U	0.025 U	42 U
Benzene	mg/L	0.0026	0.02 U	0.02 U	-	-	-	0.46[deh]	0.24[deh]	0.18[eh]	0.32[deh]	0.15[eh]	0.048[eh]	1.7 U
Bromodichloromethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 UJ
Bromoform	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 UJ
Bromomethane (Methyl bromide)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
Carbon disulfide	mg/L	0.012 U	0.1 U	0.1 U	-	-	-	-	-	-	-	0.083 U	0.005 U	8.3 U
Carbon tetrachloride	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 UJ
Chlorobenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	0.003	-	0.017 U	0.001 U	1.7 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.001 U	-
Chloroethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
Chloroform (Trichloromethane)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
Chloromethane (Methyl chloride)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
cis-1,2-Dichloroethene	mg/L	0.0061	0.49[eh]	0.5[eh]	7.13[deh]	0.001	0.05 U	2.2[deh]	-	0.097[eh]	0.001 U	0.017 U	53[dehj]	17[dehj]
cis-1,3-Dichloropropene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 UJ
Cyclohexane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.009 J	-	1.7 U
Dibromochloromethane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 UJ
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.001 U	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.02 U	-
Ethylbenzene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	0.79[dehj]	1.3[dehj]	0.5[dehj]	0.79[dehj]	0.079[deh]	0.001 U	1.7 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.01 U	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 20*	*PAOC 23*	*PAOC 23*
Sample Location:		*SB19-46*	*SB19-47*	*SB19-48*	*TW-10*	*TW-11*	*MW-7*	*MW-7*	*MW-7*	*MW-7*	*MW-7*	*MW-7*	*IW-2*	*IW-6*
Sample ID:		*WG-17303-053107-DR-005*	*WG-17303-053107-DR-006*	*WG-17303-053107-DR-007*	*TW-10*	*TW-11*	*MW-7*	*BBLMW-7*	*BBLMW-7*	*BBLMW-7*	*BBLMW-7*	*WG-17303-080805-DR-0837*	*GW-17303-112602-MM-148*	*WG-17303-080905-DR-0839*
Sample Date:		*05/31/2007*	*05/31/2007*	*05/31/2007*	*09/12/1996*	*09/12/1996*	*04/24/1996*	*02/01/1997*	*05/01/1997*	*08/01/1997*	*11/01/1997*	*08/08/2005*	*11/26/2002*	*08/09/2005*
Sample Type:														
Isopropyl benzene	mg/L	0.012 U	0.1 U	0.1 U	-	-	-	-	-	-	-	0.029 J[d]	0.005 U	8.3 U
Methyl acetate	mg/L	0.025 U	0.2 U	0.2 U	-	-	-	-	-	-	-	0.17 U	-	17 U
Methyl cyclohexane	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	-	1.7 U
Methyl tert butyl ether (MTBE)	mg/L	0.012 U	0.1 U	0.1 U	-	-	-	-	-	-	-	0.083 U	-	8.3 U
Methylene chloride	mg/L	0.012 U	0.1 U	0.1 U	-	-	-	-	-	-	-	0.083 U	0.005 U	8.3 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.005 U	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.005 U	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 U
Tetrachloroethene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	0.001 U	1.7 U
Toluene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	0.0064	0.026	0.009	0.001 U	0.017 U	0.11	1.7 U
trans-1,2-Dichloroethene	mg/L	0.0025 U	0.026	0.032	0.301[eh]	0.001 U	0.05 U	0.005 U	-	0.003	0.001 U	0.017 U	1.8 J[deh]	0.6 J[eh]
trans-1,3-Dichloropropene	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	0.001 U	1.7 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.05 U	-
Trichloroethene	mg/L	0.0025 U	0.02 U	0.02 U	0.001 U	0.001 U	0.05 U	0.47[deh]	-	0.001	0.38[deh]	0.017 U	0.058[eh]	1.7 U
Trichlorofluoromethane (CFC-11)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 U	-	1.7 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.0025 U	0.02 U	0.02 U	-	-	-	-	-	-	-	0.017 UJ	-	1.7 U
Vinyl chloride	mg/L	0.077[deh]	0.64[deh]	0.46 J[deh]	4.89[cdehi]	3.185[cdehi]	0.05 U	5.2[cdehi]	-	0.48[deh]	0.22[deh]	0.017 U	49[bcdefhij]	40[bcdefhij]
Xylenes (total)	mg/L	0.005 U	0.04 U	0.04 U	-	-	-	3[dehj]	4.8[dehj]	1.1[dehj]	1.33[dehj]	0.071 J[d]	0.083[d]	3.3 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6A.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-6***	***IW-6***	***IW-6***	***IW-6***
Sample ID:		***WG-17303-080905-DR-0840***	***WG-17303-080905-DR-0841***	***WG-17303-080905-DR-0842***	***WG-17303-080905-DR-0843***
Sample Date:		***08/09/2005***	***08/09/2005***	***08/09/2005***	***08/09/2005***
Sample Type:					***Duplicate***
Parameter:	***Units***				
VOCs					
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-
1,1,1-Trichloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	12 U	12 U	12 U	12 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichlorobenzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-
1,2-Dichloropropane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-
1,3-Dichlorobenzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	mg/L	-	-	-	-
1,4-Dichlorobenzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	62 U	62 U	62 U	62 U
2-Hexanone	mg/L	120 U	120 U	120 U	120 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	120 U	120 U	120 U	120 U
Acetone	mg/L	62 U	62 U	62 U	62 U
Benzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Bromoform	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Bromomethane (Methyl bromide)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide	mg/L	12 U	12 U	12 U	12 U
Carbon tetrachloride	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Chlorobenzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	mg/L	-	-	-	-
Chloroethane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform (Trichloromethane)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane (Methyl chloride)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	mg/L	**46**[dehj]	**75**[dehj]	**72**[dehj]	**79**[dehj]
cis-1,3-Dichloropropene	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Cyclohexane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Dibromomethane	mg/L	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Ethyl ether	mg/L	-	-	-	-
Ethylbenzene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Iodomethane	mg/L	-	-	-	-

APPENDIX F.6A.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-6***	***IW-6***	***IW-6***	***IW-6***
Sample ID:		***WG-17303-080905-DR-0840***	***WG-17303-080905-DR-0841***	***WG-17303-080905-DR-0842***	***WG-17303-080905-DR-0843***
Sample Date:		***08/09/2005***	***08/09/2005***	***08/09/2005***	***08/09/2005***
Sample Type:					***Duplicate***
Isopropyl benzene	mg/L	12 U	12 U	12 U	12 U
Methyl acetate	mg/L	25 U	25 U	25 U	25 U
Methyl cyclohexane	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert butyl ether (MTBE)	mg/L	12 U	12 U	12 U	12 U
Methylene chloride	mg/L	12 U	12 U	12 U	12 U
m-Xylene	mg/L	-	-	-	-
Naphthalene	mg/L	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-
o-Xylene	mg/L	-	-	-	-
Styrene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Toluene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	mg/L	1.2 J[eh]	1.5 J[eh]	1.5 J[eh]	1.8 J[deh]
trans-1,3-Dichloropropene	mg/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-
Trichloroethene	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Trichlorofluoromethane (CFC-11)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	mg/L	66[bcdefhij]	79[bcdefhij]	67[bcdefhij]	71[bcdefhij]
Xylenes (total)	mg/L	5 U	5 U	5 U	5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6A.3

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Criteria and RBSLs*	*Final Acute Value*	*PAOC 23* *IW-9* *GW-17303-JH-121301-0100* *12/13/2001*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
VOCs												
1,1,1,2-Tetrachloroethane	mg/L	ID	ID	30	ID	0.32	96	1100	0.077	15	ID	0.001 U
1,1,1-Trichloroethane	mg/L	1300	ID	1300	0.089	0.2	1300	1330	0.2	660	1.6	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	ID	ID	4.7	0.078	0.035	77	2970	0.0085	12	1.8	0.001 U
1,1,2-Trichloroethane	mg/L	ID	-	21	0.33	0.005	110	4420	0.005	17	6.4	0.001
1,1-Dichloroethane	mg/L	ID	380	2400	0.74	2.5	2300	5060	0.88	1000	13	0.001 U
1,1-Dichloroethene	mg/L	140	97	11	0.13	0.007	1.3	2250	0.007	0.2	2.3	**0.015[ch]**
1,2,3-Trichloropropane	mg/L	ID	-	84	-	0.12	180	1900	0.042	83	-	0.001 U
1,2,4-Trichlorobenzene	mg/L	300	-	19	0.099	0.07	300	300	0.07	300	0.2	0.005 U
1,2,4-Trimethylbenzene	mg/L	ID	56	56	0.017	0.063	56	55.89	0.063	56	0.31	0.005
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ID	-	0.39	-	0.0002	1.2	1.23	0.0002	1.2	-	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ID	ID	0.025	0.0057	0.00005	15	4200	0.00005	2.4	0.28	-
1,2-Dichlorobenzene	mg/L	160	-	160	0.013	0.6	160	156	0.6	160	0.24	0.001 U
1,2-Dichloroethane	mg/L	ID	2500	19	0.36	0.005	59	8520	0.005	9.6	16	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	19	-
1,2-Dichloropropane	mg/L	2800	550	16	0.23	0.005	36	2800	0.005	16	4	0.001 U
1,3,5-Trimethylbenzene	mg/L	ID	ID	61	0.045	0.072	61	61.15	0.072	61	0.81	0.002
1,3-Dichlorobenzene	mg/L	ID	ID	2	0.028	0.019	41	111	0.0066	18	0.2	0.001 U
1,3-Dichloropropene	mg/L	ID	130	5.5	0.009	0.035	26	2800	0.0085	3.9	0.16	-
1,4-Dichlorobenzene	mg/L	ID	-	6.4	0.017	0.075	74	73.8	0.075	16	0.21	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	240000	ID	240000	2.2	38	240000	240000	13	240000	40	0.64 J
2-Hexanone	mg/L	ID	-	5200	ID	2.9	8700	16000	1	4200	ID	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	20000	ID	13000	ID	5.2	20000	20000	1.8	20000	ID	0.05 U
Acetone	mg/L		15000	31000	1.7	2.1		1000000	0.73		30	0.1 U
Benzene	mg/L	67	68	11	0.2	0.005	35	1750	0.005	5.6	1.9	**0.02[eh]**
Bromodichloromethane	mg/L	ID	ID	14	ID	0.08	37	6740	0.08	4.8	ID	0.001 U
Bromoform	mg/L	ID	ID	140	ID	0.08	3100	3100	0.08	470	ID	0.001 U
Bromomethane (Methyl bromide)	mg/L	ID	ID	70	0.035	0.029	9	14500	0.01	4	0.64	0.001 U
Carbon disulfide	mg/L	ID	13	1200	ID	2.3	550	1190	0.8	250	ID	0.005 U
Carbon tetrachloride	mg/L	96	ID	4.6	0.045	0.005	2.4	793	0.005	0.37	1.4	0.001 U
Chlorobenzene	mg/L	ID	160	86	0.025	0.1	470	472	0.1	210	0.45	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	ID	0.001 U
Chloroethane	mg/L	ID	110	440	1.1	1.7	5700	5740	0.43	5700	20	0.001 U
Chloroform (Trichloromethane)	mg/L	ID	ID	150	0.35	0.08	180	7920	0.08	28	11	0.001 U
Chloromethane (Methyl chloride)	mg/L	210	36	490	ID	1.1	45	6340	0.26	8.6	ID	0.001 U
cis-1,2-Dichloroethene	mg/L	ID	530	200	0.62	0.07	210	3500	0.07	93	11	**16[dehj]**
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	ID	-
Dibromochloromethane	mg/L	ID	ID	18	ID	0.08	110	2600	0.08	14	ID	0.001 U
Dibromomethane	mg/L	ID	ID	530	-	0.23	ID	11000	0.08	ID	-	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	ID	300	ID	4.8	300	300	1.7	220	ID	0.001 U
Ethyl ether	mg/L	61000	650	35000	ID	0.01	61000	61000	0.01	61000	ID	0.02 U
Ethylbenzene	mg/L	170	43	170	0.018	0.074	170	169	0.074	110	0.32	**0.071[d]**
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U
Isopropyl benzene	mg/L	ID	29	56	0.028	2.3	56	56	0.8	56	0.5	0.023
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	ID	ID	610	7.1	0.04	47000	46800	0.04	47000	420	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Criteria and RBSLs*	*Final Acute Value*	*PAOC 23*
Sample Location:												***IW-9***
Sample ID:												***GW-17303-JH-121301-0100***
Sample Date:												***12/13/2001***
Sample Type:												
Parameter:	***Units***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***	
Methylene chloride	mg/L	ID	ID	220	1.5	0.005	1400	17000	0.005	220	17	0.005
m-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-	-
Naphthalene	mg/L	31	-	31	0.011	1.5	31	31	0.52	31	0.2	**0.045**[d]
N-Propylbenzene	mg/L	ID	ID	15	ID	0.23	ID	-	0.08	ID	ID	0.001
o-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-	-
Styrene	mg/L	310	140	9.7	0.08	0.1	310	310	0.1	170	2.9	0.001 U
Tetrachloroethene	mg/L	200	ID	12	0.06	0.005	170	200	0.005	25	2.9	0.001 U
Toluene	mg/L	ID	61	530	0.27	0.79	530	526	0.79	530	2.6	**0.38**[d]
trans-1,2-Dichloroethene	mg/L	ID	230	220	1.5	0.1	200	6300	0.1	85	28	**0.46**[eh]
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	0.002 U
Trichloroethene	mg/L	1100	ID	22	0.2	0.005	97	1100	0.005	15	3.5	**0.45**[deh]
Trichlorofluoromethane (CFC-11)	mg/L	1100	ID	1100	-	7.3	1100	1100	2.6	1100	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	170	ID	170	0.032	170	170	170	170	170	0.57	-
Vinyl chloride	mg/L	ID	33	1	0.013	0.002	13	2760	0.002	1.1	17	**31**[cdefhij]
Xylenes (total)	mg/L	190	70	190	0.041	0.28	190	186	0.28	190	0.73	**0.268**[d]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*GW-17303-011402-BN-111*	*GW-17303-031402-TJ-117*	*GW-17303-050602-MM-123*	*GW-072202-MM-130*	*GW-072202-MM-131*	*GW-17303-112502-MM-144*	*17303-062603-HH-IW9-208*	*GW-17303-120203-DCR-256*	*GW-17303-033104-DCR-300*	*GW-17303-033104-DCR-301*
Sample Date:		*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*12/02/2003*	*03/31/2004*	*03/31/2004*
Sample Type:						*Duplicate*					*Duplicate*
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,1-Dichloroethene	mg/L	**0.012**[eh]	**0.012**[eh]	0.004	**0.012**[eh]	**0.011**[eh]	**0.028**[eh]	**0.021**[eh]	2 U	1.4 U	1.4 U
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	10 U	7.1 U	7.1 U
1,2,4-Trimethylbenzene	mg/L	0.011	0.009	0.002	0.005	0.004	0.01	0.005	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	2 U	1.4 U	1.4 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001	0.001 U	2 U	1.4 U	1.4 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,3,5-Trimethylbenzene	mg/L	0.004	0.003	0.001 U	0.002	0.001 U	0.004	0.001 U	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.16	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	50 U	36 U	36 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U	71 U	71 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U	71 U	71 U
Acetone	mg/L	0.13	0.16	0.1 U	0.1	0.1	0.025 U	0.025 U	50 U	36 U	36 U
Benzene	mg/L	**0.034**[eh]	**0.041**[eh]	**0.015**[eh]	**0.037**[eh]	**0.038**[eh]	**0.043**[eh]	**0.025**[eh]	2 U	1.4 U	1.4 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Carbon disulfide	mg/L	0.005	0.018	0.006	0.006	0.007	0.005 U	0.005 U	10 U	7.1 U	7.1 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Chloroform (Trichloromethane)	mg/L	0.001	0.002	0.002	0.001	0.002	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
cis-1,2-Dichloroethene	mg/L	**21**[dehj]	**24**[dehj]	**4.8**[deh]	**20**[dehj]	**20**[dehj]	**29**[dehj]	**16**[dehj]	**22**[dehj]	**14**[dehj]	**14**[dehj]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	2 U	1.4 U	1.4 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Dibromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Ethyl ether	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	-
Ethylbenzene	mg/L	**0.11**[deh]	**0.15**[deh]	**0.04**[d]	**0.11**[deh]	**0.12**[deh]	**0.03**[d]	0.012	2 U	1.4 U	1.4 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	-	-	-
Isopropyl benzene	mg/L	0.026	0.028	0.01	0.001 U	0.025	**0.038**[d]	0.016	10 U	7.1 U	7.1 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	20 U	14 U	14 U
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	2 U	1.4 U	1.4 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	10 U	7.1 U	7.1 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***	***IW-9***
Sample ID:		***GW-17303-011402-BN-111***	***GW-17303-031402-TJ-117***	***GW-17303-050602-MM-123***	***GW-072202-MM-130***	***GW-072202-MM-131***	***GW-17303-112502-MM-144***	***17303-062603-HH-IW9-208***	***GW-17303-120203-DCR-256***	***GW-17303-033104-DCR-300***	***GW-17303-033104-DCR-301***
Sample Date:		***01/14/2002***	***03/14/2002***	***05/06/2002***	***07/22/2002***	***07/22/2002***	***11/25/2002***	***06/26/2003***	***12/02/2003***	***03/31/2004***	***03/31/2004***
Sample Type:						***Duplicate***					***Duplicate***
Parameter:	***Units***										
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	10 U	7.1 U	7.1 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	**0.075**[d]	**0.05**[d]	0.009	**0.033**[d]	**0.033**[d]	0.005 U	0.01	-	-	-
N-Propylbenzene	mg/L	0.001	0.001	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.007	0.001 U	2 U	1.4 U	1.4 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
Toluene	mg/L	**2.1**[deh]	**1.1**[deh]	0.22	**0.9**[deh]	**1.1**[deh]	**1.2**[deh]	**0.64**[d]	**2**[deh]	**0.43 J**[d]	**0.48 J**[d]
trans-1,2-Dichloroethene	mg/L	**0.67**[eh]	**1**[eh]	**0.18**[eh]	**0.81**[eh]	**0.86**[eh]	**0.86 J**[eh]	0.5 U	**0.56 J**[eh]	**0.41 J**[eh]	1.4 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	1.4 U	1.4 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	-	-	-
Trichloroethene	mg/L	**0.17**[eh]	**0.16**[eh]	**0.15**[eh]	**0.051**[eh]	**0.054**[eh]	**0.014**[eh]	**0.008**[eh]	2 U	1.4 U	1.4 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	2 U	1.4 U	1.4 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	2 U	1.4 U	1.4 U
Vinyl chloride	mg/L	**18**[cdefhij]	**42**[bcdefhij]	**4**[cdehi]	**36**[bcdefhij]	**39**[bcdefhij]	**73**[bcdefhij]	**74**[bcdefhij]	**68**[bcdefhij]	**50**[bcdefhij]	**50**[bcdefhij]
Xylenes (total)	mg/L	**0.57**[deh]	6 U	**0.167**[d]	**0.5**[deh]	**0.52**[deh]	3 U	**0.3**[deh]	4 U	2.9 U	2.9 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*GW-17303-063004-DR-373*	*GW-17303-092204-DCR-630*	*GW-17303-120804-DCR-656*	*GW-17303-031005-DR-688*	*WG-17303-062305-DR-0815*	*WG-17303-100505-AB-0886*	*WG-17303-121405-AB-0922*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*
Sample Date:		*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*	*03/09/2006*	*03/09/2006*
Sample Type:										*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,1,2,2-Tetrachloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,1,2-Trichloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,1-Dichloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,1-Dichloroethene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	6.2 U	5 U	6.2 U	0.005 U	6.3 U	13 U	13 U	5 U	5 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,2-Dichlorobenzene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,2-Dichloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	31 U	25 U	31 U	0.025 U	31 U	63 U	64 U	25 U	25 U
2-Hexanone	mg/L	62 U	50 U	62 U	0.05 U	63 U	130 U	130 U	50 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	62 U	50 U	62 U	0.05 U	63 U	130 U	130 U	50 UJ	50 UJ
Acetone	mg/L	31 U	25 U	31 U	0.025 U	3.7 J[deh]	12 J[deh]	64 U	25 U	25 U
Benzene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Bromodichloromethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 UJ	1 UJ
Bromoform	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Bromomethane (Methyl bromide)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Carbon disulfide	mg/L	6.2 U	5 U	6.2 U	0.005 U	6.3 U	13 U	13 U	5 U	5 U
Carbon tetrachloride	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Chlorobenzene	mg/L	1.2 U	1 U	1.2 U	0.001 U	0.14 J[deh]	2.5 U	2.6 U	1 U	1 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Chloroform (Trichloromethane)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Chloromethane (Methyl chloride)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
cis-1,2-Dichloroethene	mg/L	9.6[deh]	10[deh]	13[dehj]	12[dehj]	7.3[deh]	13[dehj]	17[dehj]	7.6 J[deh]	8.3 J[deh]
cis-1,3-Dichloropropene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 UJ	2.6 U	1 UJ	1 UJ
Cyclohexane	mg/L	1.2 U	1 U	1.2 U	0.00013 J	0.21 J	2.5 U	2.6 U	1 U	1 U
Dibromochloromethane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.2 U	1 U	1.2 U	0.0002 J	1.3 U	2.5 U	2.6 U	1 U	1 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	6.2 U	5 U	6.2 U	0.005 U	6.3 U	13 U	13 U	5 U	5 U
Methyl acetate	mg/L	12 U	10 U	12 U	0.01 U	13 U	25 UJ	26 U	10 U	10 U
Methyl cyclohexane	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Methyl tert butyl ether (MTBE)	mg/L	6.2 U	5 U	6.2 U	0.005 U	6.3 U	13 U	13 U	5 U	5 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*GW-17303-063004-DR-373*	*GW-17303-092204-DCR-630*	*GW-17303-120804-DCR-656*	*GW-17303-031005-DR-688*	*WG-17303-062305-DR-0815*	*WG-17303-100505-AB-0886*	*WG-17303-121405-AB-0922*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*
Sample Date:		*06/30/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*	*03/09/2006*	*03/09/2006*
Sample Type:										*Duplicate*
Parameter:	*Units*									
Methylene chloride	mg/L	6.2 U	5 U	6.2 U	0.005 U	6.3 U	0.38 J[eh]	13 U	5 U	5 U
m-Xylene	mg/L	-	-	-	0.00077 J	2.5 U	5 U	5.1 U	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	0.00048 J	0.13 J	2.5 U	2.6 U	-	-
Styrene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 UJ	1 UJ
Tetrachloroethene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Toluene	mg/L	1.2 U	0.3 J[d]	0.3 J[d]	0.0013	1.3 U	0.42 J[d]	0.8 J[deh]	0.38 J[d]	0.4 J[d]
trans-1,2-Dichloroethene	mg/L	0.33 J[eh]	0.29 J[eh]	0.36 J[eh]	0.0023	0.38 J[eh]	0.45 J[eh]	0.35 J[eh]	0.29 J[eh]	0.33 J[eh]
trans-1,3-Dichloropropene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 UJ	2.6 U	1 U	1 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Trichlorofluoromethane (CFC-11)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.2 U	1 U	1.2 U	0.001 U	1.3 U	2.5 U	2.6 U	1 U	1 U
Vinyl chloride	mg/L	43[bcdefhij]	36[bcdefhij]	36[bcdefhij]	45[bcdefhij]	28[cdefhij]	42[bcdefhij]	33[cdefhij]	27[cdefhij]	30[cdefhij]
Xylenes (total)	mg/L	2.5 U	2 U	2.5 U	0.0012 J	0.13 J[d]	7.5 U	7.7 U	2 UJ	2 UJ

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-070506-EV-021*	*WG-17303-100306-EV-041*	*WG-17303-120606-DK-020*	*WG-17303-030907-EV-023*	*WG-17303-060507-DR-001*	*WG-17303-090607-EV-018*	*GW-17303-120607-DR-024*	*WG-17303-032708-CB-030*	*WG-17303-061908-DR-020*	*WG-17303-092308-DR-032*
Sample Date:		*07/05/2006*	*10/03/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,1,2,2-Tetrachloroethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 UJ	1.7 U	1.2 U	1 U	0.42 U	0.71 UJ
1,1,2-Trichloroethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,1-Dichloroethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,1-Dichloroethene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	6.2 U	5 U	3.1 U	5 U	2.1 U	8.3 U	6.2 U	5 U	2.1 U	3.6 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	0.42 U	1.7 U	1.2 U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,2-Dichlorobenzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,2-Dichloroethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	0.42 U	1.7 U	1.2 U	-	-	-
1,3-Dichlorobenzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	31 U	25 U	16 U	25 U	10 U	42 U	31 U	25 U	10 U	18 U
2-Hexanone	mg/L	62 U	50 U	31 U	50 U	21 U	83 U	62 U	50 U	21 U	36 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	62 U	50 U	31 U	50 U	21 U	83 U	62 U	50 U	21 U	36 U
Acetone	mg/L	31 U	25 U	16 U	0.8 J[h]	10 U	42 U	31 U	25 U	10 U	18 U
Benzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Bromodichloromethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Bromoform	mg/L	1.2 U	1 UJ	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Bromomethane (Methyl bromide)	mg/L	1.2 UJ	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Carbon disulfide	mg/L	6.2 UJ	5 U	3.1 U	5 U	2.1 U	8.3 U	6.2 U	5 U	2.1 U	3.6 U
Carbon tetrachloride	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Chlorobenzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.2 UJ	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 UJ	0.42 U	0.71 U
Chloroform (Trichloromethane)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Chloromethane (Methyl chloride)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
cis-1,2-Dichloroethene	mg/L	12[dehj]	7.2[deh]	5[deh]	4.3[deh]	3.5[deh]	6.3[deh]	6.2[deh]	3.4[deh]	1.4[deh]	1.8[deh]
cis-1,3-Dichloropropene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Cyclohexane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Dibromochloromethane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.2 UJ	1 UJ	0.62 U	1 U	0.42 UJ	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 UJ	0.71 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	6.2 U	5 U	3.1 U	5 U	2.1 U	8.3 U	6.2 U	5 U	2.1 U	3.6 U
Methyl acetate	mg/L	12 U	10 U	6.2 U	10 U	4.2 UJ	17 U	12 U	10 U	4.2 U	7.1 U
Methyl cyclohexane	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Methyl tert butyl ether (MTBE)	mg/L	6.2 U	5 U	3.1 U	5 U	2.1 U	8.3 U	6.2 U	5 U	2.1 U	3.6 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-070506-EV-021*	*WG-17303-100306-EV-041*	*WG-17303-120606-DK-020*	*WG-17303-030907-EV-023*	*WG-17303-060507-DR-001*	*WG-17303-090607-EV-018*	*GW-17303-120607-DR-024*	*WG-17303-032708-CB-030*	*WG-17303-061908-DR-020*	*WG-17303-092308-DR-032*
Sample Date:		*07/05/2006*	*10/03/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*
Sample Type:											
Parameter:	***Units***										
Methylene chloride	mg/L	6.2 U	5 U	3.1 U	5 U	2.1 U	8.3 U	6.2 U	5 U	2.1 U	3.6 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Tetrachloroethene	mg/L	1.2 U	1 UJ	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Toluene	mg/L	1.2 ^{deh}	0.49 J ^{d}	0.15 J	0.17 J	0.13 J	0.91 J ^{deh}	1.1 J ^{deh}	0.46 J ^{d}	0.42 U	0.22 J
trans-1,2-Dichloroethene	mg/L	0.38 J ^{eh}	0.26 J ^{eh}	0.19 J ^{eh}	1 U	0.095 J	1.7 U	0.25 J ^{eh}	1 U	0.42 U	0.71 U
trans-1,3-Dichloropropene	mg/L	1.2 U	1 UJ	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Trichlorofluoromethane (CFC-11)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.2 U	1 U	0.62 U	1 U	0.42 U	1.7 U	1.2 U	1 U	0.42 U	0.71 U
Vinyl chloride	mg/L	40 ^{bcdefhij}	33 ^{cdefhij}	22 ^{cdefhij}	22 ^{cdefhij}	15 ^{cdefhi}	36 ^{bcdefhij}	46 ^{bcdefhij}	32 ^{cdefhij}	11 ^{cdehi}	17 ^{cdefhi}
Xylenes (total)	mg/L	2.5 U	2 U	0.34 J ^{deh}	2 U	0.83 U	3.3 U	0.62 J ^{deh}	2 U	0.83 UJ	1.4 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*GW-17303-JH-121301-0101*	*GW-17303-011402-BN-112*	*GW-17303-031402-TJ-118*	*GW-17303-050602-MM-124*	*GW-072202-MM-132*	*GW-17303-112502-MM-145*	*17303-062603-HH-IW12-206*	*GW-17303-120203-DCR-258*	*GW-17303-033104-DCR-302*
Sample Date:		*12/13/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*11/25/2002*	*06/26/2003*	*12/02/2003*	*03/31/2004*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,1,2-Trichloroethane	mg/L	0.006 eh	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,1-Dichloroethene	mg/L	0.17 deh	0.011 eh	0.001	0.001 U	0.059 eh	0.22 J dehi	0.016 eh	2 U	2.5 U
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	10 U	12 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	2 U	2.5 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,2-Dichloroethane	mg/L	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.23	0.11	0.07	0.099	0.05 U	0.025 U	0.025 U	50 U	62 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U	120 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U	120 U
Acetone	mg/L	0.1 U	0.34	0.28	2.6 deh	0.1 U	0.025 U	0.025 U	50 U	62 U
Benzene	mg/L	0.1 eh	0.053 eh	0.042 eh	0.088 eh	0.085 eh	0.16 eh	0.1 eh	2 U	0.63 J deh
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001	0.002	0.001 U	0.001 U	2 U	2.5 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Carbon disulfide	mg/L	0.005 U	0.008	0.007	0.005 U	0.006	0.005	0.005 U	10 U	12 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005	2 U	2.5 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.003	0.004	0.004	0.005	0.001 U	0.001 U	2 U	2.5 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
cis-1,2-Dichloroethene	mg/L	64 dehj	5 deh	1.1 deh	0.001 U	16 dehj	60 dehj	6.2 deh	44 dehj	50 dehj
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	2 U	2.5 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.003	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Dibromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Ethyl ether	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-
Ethylbenzene	mg/L	0.015	0.006	0.005	0.001 U	0.011	0.007	0.001 U	2 U	2.5 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	-	-
Isopropyl benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	10 U	12 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	20 U	25 U
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	2 U	2.5 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	10 U	12 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***
Sample ID:		***GW-17303-JH-121301-0101***	***GW-17303-011402-BN-112***	***GW-17303-031402-TJ-118***	***GW-17303-050602-MM-124***	***GW-072202-MM-132***	***GW-17303-112502-MM-145***	***17303-062603-HH-IW12-206***	***GW-17303-120203-DCR-258***	***GW-17303-033104-DCR-302***
Sample Date:		***12/13/2001***	***01/14/2002***	***03/14/2002***	***05/06/2002***	***07/22/2002***	***11/25/2002***	***06/26/2003***	***12/02/2003***	***03/31/2004***
Sample Type:										
Parameter:	***Units***									
Methylene chloride	mg/L	0.005	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	10 U	12 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	0.007	0.006	0.005 U	0.005 U	0.005 U	0.005 U	-	-
N-Propylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
Toluene	mg/L	0.26	0.16	0.13	0.17	0.2	0.48 J[d]	0.08	2 U	2.5 U
trans-1,2-Dichloroethene	mg/L	0.76[eh]	0.26[eh]	0.1	0.001 U	0.95[eh]	2.2[deh]	0.27[eh]	1.5 J[eh]	2 J[deh]
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U	2.5 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	-	-
Trichloroethene	mg/L	0.008[eh]	0.001 U	0.001 U	0.001 U	0.001 U	0.78 J[deh]	0.001	2 U	2.5 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	2 U	2.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	2 U	2.5 U
Vinyl chloride	mg/L	39[bcdefhij]	2.2[cdehi]	0.21[deh]	0.001 U	14[cdefhi]	74[bcdefhij]	13[cdehi]	22[cdefhij]	31[cdefhij]
Xylenes (total)	mg/L	0.039	0.017	0.01	0.003 U	0.039	0.1[d]	0.006	4 U	5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*GW-17303-070104-DR-375*	*GW-17303-092204-DCR-633*	*GW-17303-120704-DCR-651*	*GW-17303-031005-DR-684*	*GW-17303-031005-DR-685*	*WG-17303-062305-DR-0816*	*WG-17303-080905-DR-0844*	*WG-17303-080905-DR-0845*	*WG-17303-080905-DR-0846*
Sample Date:		*07/01/2004*	*09/22/2004*	*12/07/2004*	*03/10/2005*	*03/10/2005*	*06/23/2005*	*08/09/2005*	*08/09/2005*	*08/09/2005*
Sample Type:						*Duplicate*				
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,1,2,2-Tetrachloroethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,1,2-Trichloroethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,1-Dichloroethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,1-Dichloroethene	mg/L	0.56 U	1 U	1.7 U	**0.041 J[eh]**	**0.042 J[eh]**	**0.16 J[deh]**	0.5 U	1.2 U	1.7 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.8 U	5 U	8.3 U	0.005 U	0.005 U	6.3 U	2.5 U	6.2 U	8.3 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,2-Dichlorobenzene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,2-Dichloroethane	mg/L	0.56 U	1 U	1.7 U	0.00012 J	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.56 U	1 U	1.7 U	0.00015 J	0.00017 J	1.3 U	0.5 U	1.2 U	1.7 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	14 U	25 U	42 U	0.025 U	0.025 U	31 U	12 U	31 U	42 U
2-Hexanone	mg/L	28 U	50 U	83 U	0.05 U	0.05 U	63 U	25 U	62 U	83 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	28 U	50 U	83 U	0.05 U	0.05 U	63 U	25 U	62 U	83 U
Acetone	mg/L	0.64 J	25 U	42 U	0.003 J	0.0029 J	31 U	12 U	31 U	42 U
Benzene	mg/L	**0.17 J[eh]**	1 U	1.7 U	**0.035 J[eh]**	**0.036 J[eh]**	1.3 U	0.5 U	1.2 U	1.7 U
Bromodichloromethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
Bromoform	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
Bromomethane (Methyl bromide)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Carbon disulfide	mg/L	2.8 U	5 U	8.3 U	0.005 U	0.005 U	6.3 U	2.5 U	6.2 U	8.3 U
Carbon tetrachloride	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
Chlorobenzene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	**0.18 J[deh]**	0.5 U	1.2 U	1.7 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.56 U	1 U	1.7 U	0.012	0.013	1.3 U	0.5 U	1.2 U	1.7 U
Chloroform (Trichloromethane)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Chloromethane (Methyl chloride)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
cis-1,2-Dichloroethene	mg/L	**12[dehj]**	**31[dehj]**	**46[dehj]**	**8[deh]**	**8.9[deh]**	**19[dehj]**	**15[dehj]**	**30[dehj]**	**45[dehj]**
cis-1,3-Dichloropropene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
Cyclohexane	mg/L	0.56 U	1 U	1.7 U	0.0016	0.0015	0.17 J	0.5 U	1.2 U	1.7 U
Dibromochloromethane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.56 U	1 U	1.7 U	0.00023 J	0.00027 J	1.3 U	0.5 U	1.2 U	1.7 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	2.8 U	5 U	8.3 U	0.00025 J	0.00026 J	6.3 U	2.5 U	6.2 U	8.3 U
Methyl acetate	mg/L	5.6 U	10 U	17 U	0.01 U	0.01 U	13 U	5 U	12 U	17 U
Methyl cyclohexane	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Methyl tert butyl ether (MTBE)	mg/L	2.8 U	5 U	8.3 U	0.005 U	0.005 U	6.3 U	2.5 U	6.2 U	8.3 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***	***IW-12***
Sample ID:		***GW-17303-070104-DR-375***	***GW-17303-092204-DCR-633***	***GW-17303-120704-DCR-651***	***GW-17303-031005-DR-684***	***GW-17303-031005-DR-685***	***WG-17303-062305-DR-0816***	***WG-17303-080905-DR-0844***	***WG-17303-080905-DR-0845***	***WG-17303-080905-DR-0846***
Sample Date:		***07/01/2004***	***09/22/2004***	***12/07/2004***	***03/10/2005***	***03/10/2005***	***06/23/2005***	***08/09/2005***	***08/09/2005***	***08/09/2005***
Sample Type:						***Duplicate***				
Parameter:	***Units***									
Methylene chloride	mg/L	2.8 U	5 U	8.3 U	0.005 U	0.005 U	6.3 U	2.5 U	6.2 U	8.3 U
m-Xylene	mg/L	-	-	-	0.0054	0.0055	2.5 U	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	0.0055	0.0057	1.3 U	-	-	-
Styrene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.00018 J	1.3 U	0.5 U	1.2 U	1.7 U
Tetrachloroethene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Toluene	mg/L	0.13 J	1 U	1.7 U	0.043 J	0.045 J	1.3 U	0.097 J	1.2 U	1.7 U
trans-1,2-Dichloroethene	mg/L	**0.45 J[eh]**	**0.75 J[eh]**	**1.1 J[eh]**	**0.29 J[eh]**	**0.33 J[eh]**	**0.58 J[eh]**	**0.29 J[eh]**	**0.5 J[eh]**	**0.88 J[eh]**
trans-1,3-Dichloropropene	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 UJ	1.2 UJ	1.7 UJ
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.56 U	1 U	1.7 U	0.0016	0.0016	1.3 U	0.5 U	1.2 U	1.7 U
Trichlorofluoromethane (CFC-11)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	1.3 U	0.5 U	1.2 U	1.7 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.56 U	1 U	1.7 U	0.001 U	0.001 U	**0.15 J[d]**	0.5 U	1.2 U	1.7 U
Vinyl chloride	mg/L	**9.9[cdehi]**	**21[cdefhij]**	**28[cdefhij]**	**11[cdehi]**	**12[cdehi]**	**19[cdefhij]**	**13[cdehi]**	**21[cdefhij]**	**28[cdefhij]**
Xylenes (total)	mg/L	1.1 U	2 U	3.3 U	0.011	0.011	3.8 U	1 U	2.5 U	3.3 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*WG-17303-080905-DR-0847*	*WG-17303-100505-AB-0884*	*WG-17303-121305-NR-0906*	*WG-17303-030906-EV-0961*	*WG-17303-070506-EV-022*	*WG-17303-100406-LA-056*	*WG-17303-120606-EV-019*	*WG-17303-030907-EV-024*	*WG-17303-060507-DR-002*
Sample Date:		*08/09/2005*	*10/05/2005*	*12/13/2005*	*03/09/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,1,2,2-Tetrachloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 UJ
1,1,2-Trichloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,1-Dichloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,1-Dichloroethene	mg/L	0.3 J[dehi]	0.11 J[eh]	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	8.3 U	1.3 U	16 U	5 U	8.3 U	5 U	6.2 U	6.2 U	5 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	1 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,2-Dichlorobenzene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,2-Dichloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	1 U
1,3-Dichlorobenzene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	42 U	6.3 U	78 U	25 U	42 U	25 U	31 U	31 U	25 U
2-Hexanone	mg/L	83 U	13 U	160 U	50 U	83 U	50 U	62 U	62 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	83 U	13 U	160 U	50 UJ	83 U	50 U	62 U	62 U	50 UJ
Acetone	mg/L	42 U	6.3 U	78 U	25 U	42 U	25 U	31 U	31 U	25 U
Benzene	mg/L	1.7 U	0.077 J[eh]	3.1 U	1 U	1.7 U	0.24 J[deh]	1.2 U	1.2 U	0.27 J[deh]
Bromodichloromethane	mg/L	1.7 UJ	0.25 U	3.1 U	1 UJ	1.7 U	1 U	1.2 U	1.2 U	1 U
Bromoform	mg/L	1.7 UJ	0.25 U	3.1 U	1 U	1.7 U	1 UJ	1.2 U	1.2 U	1 U
Bromomethane (Methyl bromide)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 UJ	1 U	1.2 U	1.2 U	1 U
Carbon disulfide	mg/L	8.3 U	1.3 U	16 U	5 U	8.3 UJ	5 U	6.2 U	6.2 U	5 U
Carbon tetrachloride	mg/L	1.7 UJ	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Chlorobenzene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 UJ	1 U	1.2 U	1.2 U	1 U
Chloroform (Trichloromethane)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Chloromethane (Methyl chloride)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
cis-1,2-Dichloroethene	mg/L	76[dehj]	43[dehj]	49[dehj]	38 J[dehj]	41[dehj]	75[dehj]	47[dehj]	41[dehj]	34[dehj]
cis-1,3-Dichloropropene	mg/L	1.7 UJ	0.25 U	3.1 U	1 UJ	1.7 U	1 U	1.2 U	1.2 U	1 U
Cyclohexane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Dibromochloromethane	mg/L	1.7 UJ	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 UJ	1 U	1.2 U	1.2 U	1 UJ
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	8.3 U	1.3 U	16 U	5 U	8.3 U	5 U	6.2 U	6.2 U	5 U
Methyl acetate	mg/L	17 U	2.5 U	31 U	10 U	17 U	10 U	12 U	12 U	10 UJ
Methyl cyclohexane	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Methyl tert butyl ether (MTBE)	mg/L	8.3 U	1.3 U	16 U	5 U	8.3 U	5 U	6.2 U	6.2 U	5 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*WG-17303-080905-DR-0847*	*WG-17303-100505-AB-0884*	*WG-17303-121305-NR-0906*	*WG-17303-030906-EV-0961*	*WG-17303-070506-EV-022*	*WG-17303-100406-LA-056*	*WG-17303-120606-EV-019*	*WG-17303-030907-EV-024*	*WG-17303-060507-DR-002*
Sample Date:		*08/09/2005*	*10/05/2005*	*12/13/2005*	*03/09/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*
Sample Type:										
Parameter:	*Units*									
Methylene chloride	mg/L	8.3 U	1.3 U	16 U	5 U	8.3 U	5 U	6.2 U	6.2 U	5 U
m-Xylene	mg/L	-	0.5 U	6.3 U	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	0.25 U	3.1 U	-	-	-	-	-	-
Styrene	mg/L	1.7 U	0.25 U	3.1 U	1 UJ	1.7 U	1 U	1.2 U	1.2 U	1 U
Tetrachloroethene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Toluene	mg/L	1.7 U	0.13 J	3.1 U	1 U	1.7 U	0.21 J	1.2 U	1.2 U	1 U
trans-1,2-Dichloroethene	mg/L	1.3 J[eh]	0.51[eh]	0.72 J[eh]	0.54 J[eh]	0.61 J[eh]	0.97 J[eh]	0.6 J[eh]	0.56 J[eh]	0.49 J[eh]
trans-1,3-Dichloropropene	mg/L	1.7 UJ	0.25 U	3.1 U	1 U	1.7 U	1 UJ	1.2 U	1.2 U	1 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Trichlorofluoromethane (CFC-11)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.7 U	0.25 U	3.1 U	1 U	1.7 U	1 U	1.2 U	1.2 U	1 U
Vinyl chloride	mg/L	39[bcdefhij]	32[cdefhij]	29[cdefhij]	23[cdefhij]	23[cdefhij]	36[bcdefhij]	28[cdefhij]	24[cdefhij]	26[cdefhij]
Xylenes (total)	mg/L	3.3 U	0.75 U	9.4 U	2 UJ	3.3 U	2 U	2.5 U	2.5 U	2 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-14*	*IW-18*	*IW-20*
Sample ID:		*WG-17303-090607-EV-015*	*GW-17303-120607-DR-025*	*WG-17303-032708-CB-029*	*WG-17303-061908-DR-021*	*WG-17303-092308-DR-030*	*WG-17303-102610-DR-021*	*GW-17303-012904-MM-297*	*GW-17303-112602-MM-154*	*WG-17303-061605-DR-0792*
Sample Date:		*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*	*10/26/2010*	*01/29/2004*	*11/26/2002*	*06/16/2005*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	0.001 U	-
1,1,1-Trichloroethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,1,2,2-Tetrachloroethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 UJ	1.7 U	1 U	0.001 U	0.12 U
1,1,2-Trichloroethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,1-Dichloroethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,1-Dichloroethene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	1.3 J[dehi]	0.33[dehi]
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	0.001 U	-
1,2,4-Trichlorobenzene	mg/L	8.3 U	8.3 U	3.1 U	5 U	5 U	8.3 U	5 U	0.001 U	0.62 U
1,2,4-Trimethylbenzene	mg/L	1.7 U	1.7 U	-	-	-	-	-	0.044[d]	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	-	0.12 U
1,2-Dichlorobenzene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.002	0.12 U
1,2-Dichloroethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,3,5-Trimethylbenzene	mg/L	1.7 U	1.7 U	-	-	-	-	-	0.01	-
1,3-Dichlorobenzene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	42 U	42 U	16 U	25 U	25 U	42 U	25 U	0.025 U	3.1 U
2-Hexanone	mg/L	83 U	83 U	31 U	50 U	50 U	83 U	50 U	0.05 U	6.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	83 U	83 U	31 U	50 U	50 U	83 U	50 U	0.05 U	6.2 U
Acetone	mg/L	1.8 J[dh]	42 U	0.9 J[h]	25 U	25 U	42 U	25 U	0.025 U	2 J[dh]
Benzene	mg/L	1.7 U	0.37 J[deh]	0.62 U	1 U	0.26 J[deh]	1.7 U	1 U	0.032[eh]	0.12 U
Bromodichloromethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Bromoform	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Bromomethane (Methyl bromide)	mg/L	1.7 U	1.7 U	0.62 UJ	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Carbon disulfide	mg/L	8.3 U	8.3 U	3.1 U	5 U	5 U	8.3 U	5 U	0.005 U	0.62 U
Carbon tetrachloride	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Chlorobenzene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	0.001 U	-
Chloroethane	mg/L	1.7 U	1.7 U	0.62 UJ	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Chloroform (Trichloromethane)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001	0.12 U
Chloromethane (Methyl chloride)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
cis-1,2-Dichloroethene	mg/L	52[dehj]	54[dehj]	14[dehj]	32[dehj]	38[dehj]	36[dehj]	22[dehj]	76[dehj]	1.8[deh]
cis-1,3-Dichloropropene	mg/L	1.7 U	1.7 U	0.62 U	1 UJ	1 U	1.7 U	1 U	0.001 U	0.12 U
Cyclohexane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	-	0.12 U
Dibromochloromethane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	0.001 U	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	0.02 U	-
Ethylbenzene	mg/L	1.7 U	1.7 U	0.62 U	1 UJ	1 U	1.7 U	1 U	0.17[deh]	0.57[dehj]
Iodomethane	mg/L	-	-	-	-	-	-	-	0.01 U	-
Isopropyl benzene	mg/L	8.3 U	8.3 U	3.1 U	5 U	5 U	8.3 U	5 U	0.016	0.021 J
Methyl acetate	mg/L	17 U	17 U	6.2 U	10 U	10 U	17 U	10 U	-	1.2 U
Methyl cyclohexane	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	-	0.12 U
Methyl tert butyl ether (MTBE)	mg/L	8.3 U	8.3 U	3.1 U	5 U	5 U	8.3 U	5 U	-	0.62 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-14*	*IW-18*	*IW-20*
Sample ID:		*WG-17303-090607-EV-015*	*GW-17303-120607-DR-025*	*WG-17303-032708-CB-029*	*WG-17303-061908-DR-021*	*WG-17303-092308-DR-030*	*WG-17303-102610-DR-021*	*GW-17303-012904-MM-297*	*GW-17303-112602-MM-154*	*WG-17303-061605-DR-0792*
Sample Date:		*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/23/2008*	*10/26/2010*	*01/29/2004*	*11/26/2002*	*06/16/2005*
Sample Type:										
Parameter:	*Units*									
Methylene chloride	mg/L	8.3 U	8.3 U	3.1 U	5 U	5 U	8.3 U	5 U	0.005 U	0.053 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	0.02[d]	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	0.005	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Tetrachloroethene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
Toluene	mg/L	1.7 U	1.7 U	0.62 U	0.24 J	1 U	1.7 U	1 U	1.4 J[deh]	0.083 J
trans-1,2-Dichloroethene	mg/L	0.69 J[eh]	0.69 J[eh]	0.17 J[eh]	0.38 J[eh]	0.42 J[eh]	0.35 J[eh]	0.51 J[eh]	8.4[deh]	0.77[eh]
trans-1,3-Dichloropropene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	0.001 U	0.12 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	0.05 U	-
Trichloroethene	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	24[cdehij]	3.6[dehj]
Trichlorofluoromethane (CFC-11)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	-	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.7 U	1.7 U	0.62 U	1 U	1 U	1.7 U	1 U	-	0.12 U
Vinyl chloride	mg/L	27[cdefhij]	31[cdefhij]	13 J[cdehi]	19[cdefhij]	18[cdefhij]	14[cdefhi]	21[cdefhij]	17[cdefhi]	1.2[cdehi]
Xylenes (total)	mg/L	3.3 U	3.3 U	1.2 U	2 U	2 U	3.3 U	2 U	1.36 J[dehj]	0.89[dehj]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-24*	*IW-24*	*IW-24*	*IW-24*	*IW-26*	*IW-26R*	*IW-29*	*IW-30*	*IW-30*
Sample ID:		*WG-17303-080905-DR-0848*	*WG-17303-080905-DR-0849*	*WG-17303-080905-DR-0850*	*WG-17303-080905-DR-0851*	*GW-17303-112602-MM-151*	*GW-17303-120303-DCR-276*	*GW-17303-012904-MM-294*	*GW-17303-112602-MM-149*	*GW-17303-112602-MM-150*
Sample Date:		*08/09/2005*	*08/09/2005*	*08/09/2005*	*08/09/2005*	*11/26/2002*	*12/03/2003*	*01/29/2004*	*11/26/2002*	*11/26/2002*
Sample Type:										*Duplicate*
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	0.001 U	-	-	0.001 U	0.001 U
1,1,1-Trichloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.054 J[eh]	0.5 U	0.5 U	0.095 J[eh]	0.02 J[eh]	1 U	1 U	0.33 J[dehi]	0.32 J[dehi]
1,2,3-Trichloropropane	mg/L	-	-	-	-	0.001 U	-	-	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	1.2 U	2.5 U	2.5 U	2.5 U	0.001 U	5 U	5 U	0.001 U	0.001 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	0.036[d]	-	-	0.02[d]	0.02[d]
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	-	1 U	1 U	-	-
1,2-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.003	0.001 U
1,2-Dichloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	0.007	-	-	0.007	0.008
1,3-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	6.2 U	12 U	12 U	12 UJ	0.025 U	25 U	25 U	0.025 U	0.025 U
2-Hexanone	mg/L	12 U	25 U	25 U	25 UJ	0.05 U	50 U	50 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	12 U	25 U	25 U	25 U	0.05 U	50 U	50 U	0.05 U	0.05 U
Acetone	mg/L	6.2 U	12 U	12 U	12 U	0.025 U	25 U	25 U	0.025 U	0.025 U
Benzene	mg/L	0.088 J[eh]	0.12 J[eh]	0.12 J[eh]	0.13 J[eh]	0.021 J[eh]	1 U	1 U	0.16[eh]	0.15[eh]
Bromodichloromethane	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
Bromoform	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Carbon disulfide	mg/L	1.2 U	2.5 U	2.5 U	2.5 U	0.005 U	5 U	5 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	0.001 U	-	-	0.001 U	0.001 U
Chloroethane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	5.3[deh]	13[dehj]	16[dehj]	22 J[dehj]	13[dehj]	21[dehj]	4.6[deh]	58[dehj]	60[dehj]
cis-1,3-Dichloropropene	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	-	1 U	1 U	-	-
Dibromochloromethane	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	0.001 U	-	-	0.001 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	0.02 U	-	-	0.02 U	0.02 U
Ethylbenzene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.028[d]	1 U	1 U	0.005	0.005
Iodomethane	mg/L	-	-	-	-	0.01 U	-	-	0.01 U	0.01 U
Isopropyl benzene	mg/L	1.2 U	2.5 U	2.5 U	2.5 U	0.058[d]	5 U	5 U	0.094[d]	0.094[d]
Methyl acetate	mg/L	2.5 U	5 U	5 U	5 U	-	10 U	10 U	-	-
Methyl cyclohexane	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	-	1 U	1 U	-	-
Methyl tert butyl ether (MTBE)	mg/L	1.2 U	2.5 U	2.5 U	2.5 U	-	5 U	5 U	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-24***	***IW-24***	***IW-24***	***IW-24***	***IW-26***	***IW-26R***	***IW-29***	***IW-30***	***IW-30***
Sample ID:		***WG-17303-080905-DR-0848***	***WG-17303-080905-DR-0849***	***WG-17303-080905-DR-0850***	***WG-17303-080905-DR-0851***	***GW-17303-112602-MM-151***	***GW-17303-120303-DCR-276***	***GW-17303-012904-MM-294***	***GW-17303-112602-MM-149***	***GW-17303-112602-MM-150***
Sample Date:		***08/09/2005***	***08/09/2005***	***08/09/2005***	***08/09/2005***	***11/26/2002***	***12/03/2003***	***01/29/2004***	***11/26/2002***	***11/26/2002***
Sample Type:										***Duplicate***
Parameter:	***Units***									
Methylene chloride	mg/L	1.2 U	2.5 U	2.5 U	2.5 U	0.005 U	5 U	5 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	0.1[d]	-	-	0.073[d]	0.083[d]
N-Propylbenzene	mg/L	-	-	-	-	0.005 U	-	-	0.005 U	0.005 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001	0.001 U
Tetrachloroethene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.001 U	1 U	1 U	0.001 U	0.001 U
Toluene	mg/L	0.056 J	0.1 J	0.12 J	0.16 J	0.3 J[d]	0.21 J	1 U	0.27 J	0.26 J
trans-1,2-Dichloroethene	mg/L	0.78[eh]	1.5[eh]	1.8[deh]	1.9[deh]	0.5 U	0.54 J[eh]	1.5[eh]	3.8[deh]	4.1[deh]
trans-1,3-Dichloropropene	mg/L	0.25 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.001 U	1 U	1 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	0.05 U	-	-	0.05 U	0.05 U
Trichloroethene	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	0.7[deh]	1 U	1 U	0.026[eh]	0.026[eh]
Trichlorofluoromethane (CFC-11)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	-	1 U	1 U	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.25 U	0.5 U	0.5 U	0.5 U	-	1 U	1 U	-	-
Vinyl chloride	mg/L	5.5[cdehi]	11[cdehi]	13[cdehi]	17 J[cdefhi]	12[cdehi]	35[bcdefhij]	20[cdefhij]	75[bcdefhij]	75[bcdefhij]
Xylenes (total)	mg/L	0.5 U	1 U	0.23 J[d]	0.41 J[deh]	0.12[d]	2 U	2 U	0.26[d]	0.26 J[d]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***
Sample ID:		***GW-17303-JH-121301-0102***	***GW-17303-011402-BN-113***	***GW-17303-031402-TJ-119***	***GW-17303-050602-MM-125***	***GW-17303-050602-MM-126***	***GW-072202-MM-135***	***GW-17303-112602-MM-153***	***17303-062603-HH-MW33-207***	***GW-17303-120203-DCR-257***
Sample Date:		***12/13/2001***	***01/14/2002***	***03/14/2002***	***05/06/2002***	***05/06/2002***	***07/22/2002***	***11/26/2002***	***06/26/2003***	***12/02/2003***
Sample Type:						***Duplicate***				
Parameter:	***Units***									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,1,2-Trichloroethane	mg/L	**0.034**[eh]	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.003	0.001 U	2 U
1,1-Dichloroethane	mg/L	0.003	0.001	0.001	0.001 U	0.001 U	0.002	0.002	0.003	2 U
1,1-Dichloroethene	mg/L	**0.031**[eh]	**0.012**[eh]	0.001 U	0.001 U	0.001 U	0.003	**0.033**[eh]	**0.057**[eh]	2 U
1,2,3-Trichloropropane	mg/L	0.003	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	10 U
1,2,4-Trimethylbenzene	mg/L	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.003	0.002	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	-	2 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,2-Dichloroethane	mg/L	**0.009**[eh]	0.001	0.001	0.001	0.001	0.003	0.004	0.004	2 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	**0.006**[eh]	0.001 U	0.002	0.001	0.002	0.001 U	0.001 U	0.001 U	2 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.11	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	50 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	100 U
Acetone	mg/L	0.26	0.49	0.24	0.4	0.38	0.1 U	0.025 U	0.025 U	50 U
Benzene	mg/L	**0.18**[eh]	**0.08**[eh]	**0.068**[eh]	**0.058**[eh]	**0.062**[eh]	**0.11**[eh]	**0.18**[eh]	**0.12**[eh]	2 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.002	0.002	0.002	0.001 U	0.001 U	0.001 U	2 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Carbon disulfide	mg/L	0.005 U	0.026	0.017	0.01	0.011	0.019	0.005 U	0.005 U	10 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.004	0.005	0.006	0.006	0.006	0.001	0.001 U	2 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
cis-1,2-Dichloroethene	mg/L	**12**[dehj]	**2.8**[deh]	**0.59**[eh]	0.001 U	0.001 U	**1.5**[deh]	**7.4**[deh]	**15**[dehj]	**5.1**[deh]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	2 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.003	0.003	0.001 U	0.001 U	0.001 U	2 U
Dibromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Ethyl ether	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-
Ethylbenzene	mg/L	**0.026**[d]	0.01	0.001	0.001	0.002	0.001 U	0.001 U	**0.052**[d]	2 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	-
Isopropyl benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	10 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	20 U
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	2 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	-	10 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*
Sample ID:		*GW-17303-JH-121301-0102*	*GW-17303-011402-BN-113*	*GW-17303-031402-TJ-119*	*GW-17303-050602-MM-125*	*GW-17303-050602-MM-126*	*GW-072202-MM-135*	*GW-17303-112602-MM-153*	*17303-062603-HH-MW33-207*	*GW-17303-120203-DCR-257*
Sample Date:		*12/13/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*05/06/2002*	*07/22/2002*	*11/26/2002*	*06/26/2003*	*12/02/2003*
Sample Type:						*Duplicate*				
Parameter:	***Units***									
Methylene chloride	mg/L	0.008 eh	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	10 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
N-Propylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001	2 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
Toluene	mg/L	0.17	0.084	0.066	0.048	0.053	0.12	0.21 J	0.11	2 U
trans-1,2-Dichloroethene	mg/L	0.6 eh	0.21 eh	0.006	0.001 U	0.001 U	0.15 eh	0.6 J eh	1 U	2 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	2 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.05 U	0.05 U	-
Trichloroethene	mg/L	0.012 eh	0.03 eh	0.012 eh	0.001 U	0.001 U	0.065 eh	0.15 eh	0.14 eh	2 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	-	2 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	-	2 U
Vinyl chloride	mg/L	200 bcdefhij	14 cdefhi	0.42 deh	0.001 U	0.001 U	27 cdefhij	100 bcdefhij	120 bcdefhij	48 bcdefhij
Xylenes (total)	mg/L	0.115 d	0.063 d	0.036	0.02	0.021	0.093 d	0.196 d	0.082 d	4 U

Notes:
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The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*
Sample ID:		*GW-17303-040104-DCR-312*	*GW-17303-070104-DR-376*	*GW-17303-092204-MM-631*	*GW-17303-092204-MM-632*	*GW-17303-120804-DCR-657*	*GW-17303-031005-DR-686*	*WG-17303-062305-DR-0817*	*WG-17303-100505-AB-0885*	*WG-17303-121405-NR-0923*
Sample Date:		*04/01/2004*	*07/01/2004*	*09/22/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*
Sample Type:					*Duplicate*					
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
1,1,2,2-Tetrachloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
1,1,2-Trichloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.0069 eh	6.3 U	5 U	3.6 U
1,1-Dichloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.0097	6.3 U	5 U	3.6 U
1,1-Dichloroethene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.36 J dehi	6.3 U	5 U	3.6 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	6.2 U	8.3 U	17 U	17 U	17 U	0.00021 J	31 U	25 U	18 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
1,2-Dichlorobenzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.00075 J	6.3 U	5 U	3.6 U
1,2-Dichloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.018 eh	6.3 U	5 U	3.6 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.0094 eh	6.3 U	5 U	3.6 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.00052 J	6.3 U	5 U	3.6 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.00092 J	6.3 U	5 U	3.6 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	31 U	42 U	83 U	83 U	83 U	0.022 J	160 U	130 U	89 U
2-Hexanone	mg/L	62 U	83 U	170 U	170 U	170 U	0.05 U	310 U	250 U	180 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	62 U	83 U	170 U	170 U	170 U	0.079	310 U	250 U	180 U
Acetone	mg/L	31 U	1.5 J h	83 U	83 U	83 U	0.055	160 U	130 U	89 U
Benzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.14 J eh	6.3 U	5 U	3.6 U
Bromodichloromethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Bromoform	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Bromomethane (Methyl bromide)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Carbon disulfide	mg/L	6.2 U	8.3 U	17 U	17 U	17 U	0.005 U	31 U	25 U	18 U
Carbon tetrachloride	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Chlorobenzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.0001 J	6.3 U	5 U	3.6 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Chloroform (Trichloromethane)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Chloromethane (Methyl chloride)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
cis-1,2-Dichloroethene	mg/L	2.3 deh	4.4 deh	5.5 deh	5.6 deh	45 dehj	130 dehij	71 dehj	14 dehj	5.6 deh
cis-1,3-Dichloropropene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Cyclohexane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.014	6.3 U	5 U	3.6 U
Dibromochloromethane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.007	3.5 J dehj	5 U	3.6 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	6.2 U	8.3 U	17 U	17 U	17 U	0.0054	31 U	25 U	18 U
Methyl acetate	mg/L	12 U	17 U	33 U	33 U	33 U	0.01 U	63 U	50 U	36 U
Methyl cyclohexane	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.0048	6.3 U	5 U	3.6 U
Methyl tert butyl ether (MTBE)	mg/L	6.2 U	8.3 U	17 U	17 U	17 U	0.005 U	31 U	25 U	18 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*
Sample ID:		*GW-17303-040104-DCR-312*	*GW-17303-070104-DR-376*	*GW-17303-092204-MM-631*	*GW-17303-092204-MM-632*	*GW-17303-120804-DCR-657*	*GW-17303-031005-DR-686*	*WG-17303-062305-DR-0817*	*WG-17303-100505-AB-0885*	*WG-17303-121405-NR-0923*
Sample Date:		*04/01/2004*	*07/01/2004*	*09/22/2004*	*09/22/2004*	*12/08/2004*	*03/10/2005*	*06/23/2005*	*10/05/2005*	*12/14/2005*
Sample Type:					*Duplicate*					
Parameter:	***Units***									
Methylene chloride	mg/L	6.2 U	8.3 U	17 U	17 U	17 U	0.00088 J	31 U	25 U	18 U
m-Xylene	mg/L	-	-	-	-	-	0.099 J	5.7 J[eh]	10 U	7.1 U
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	0.084 J	2.7 J[eh]	5 U	3.6 U
Styrene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Tetrachloroethene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Toluene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.14 J	0.8 J[deh]	5 U	3.6 U
trans-1,2-Dichloroethene	mg/L	1.2 U	0.31 J[eh]	3.3 U	3.3 U	0.99 J[eh]	2.1 J[deh]	1.6 J[deh]	0.82 J[eh]	3.6 U
trans-1,3-Dichloropropene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.12 J[eh]	6.3 U	5 U	3.6 U
Trichlorofluoromethane (CFC-11)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Trifluorotrichloroethane (Freon 113)	mg/L	1.2 U	1.7 U	3.3 U	3.3 U	3.3 U	0.001 U	6.3 U	5 U	3.6 U
Vinyl chloride	mg/L	40[bcdefhij]	45[bcdefhij]	98[bcdefhij]	90[bcdefhij]	120[bcdefhij]	220[bcdefhij]	180[bcdefhij]	88[bcdefhij]	55[bcdefhij]
Xylenes (total)	mg/L	2.5 U	3.3 U	6.7 U	6.7 U	6.7 U	0.19 J[d]	9.1 J[dehj]	15 U	11 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*
Sample ID:		*WG-17303-031006-EV-0962*	*WG-17303-070506-EV-023*	*WG-17303-100406-LA-055*	*WG-17303-120606-EV-018*	*WG-17303-030907-EV-025*	*WG-17303-060507-DR-003*	*WG-17303-090607-EV-016*	*GW-17303-120607-DR-026*	*WG-17303-032708-CB-028*	*WG-17303-061908-DR-022*
Sample Date:		*03/10/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,1,2,2-Tetrachloroethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 UJ	5 U	1.7 U	3.3 U	2.5 U
1,1,2-Trichloroethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,1-Dichloroethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,1-Dichloroethene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	25 U	17 U	6.2 U	10 U	25 U	10 U	25 U	8.3 U	17 U	12 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	2 U	5 U	1.7 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,2-Dichlorobenzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,2-Dichloroethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	2 U	5 U	1.7 U	-	-
1,3-Dichlorobenzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	120 U	83 U	31 U	50 U	120 U	50 U	120 U	42 U	83 U	62 U
2-Hexanone	mg/L	250 UJ	170 U	62 U	100 U	250 U	100 U	250 U	83 U	170 U	120 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	250 U	170 U	62 U	100 U	250 U	100 U	250 U	83 U	170 U	120 U
Acetone	mg/L	120 U	83 U	31 U	50 U	**4.1 J[deh]**	50 U	120 U	42 U	**5.1 J[deh]**	62 U
Benzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Bromodichloromethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Bromoform	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Bromomethane (Methyl bromide)	mg/L	5 U	3.3 UJ	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Carbon disulfide	mg/L	25 U	17 UJ	6.2 U	10 U	25 U	10 U	25 U	8.3 U	17 U	12 U
Carbon tetrachloride	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Chlorobenzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	5 U	3.3 UJ	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Chloroform (Trichloromethane)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Chloromethane (Methyl chloride)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
cis-1,2-Dichloroethene	mg/L	**10[deh]**	**30[dehj]**	**7.8[deh]**	**4.1[deh]**	**4.6 J[deh]**	**8.8[deh]**	**13[dehj]**	**3.5[deh]**	**1.2 J[deh]**	**2.8[deh]**
cis-1,3-Dichloropropene	mg/L	5 UJ	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 UJ
Cyclohexane	mg/L	5 U	3.3 U	1.2 UJ	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Dibromochloromethane	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	5 U	3.3 UJ	1.2 UJ	2 U	5 U	2 UJ	5 U	1.7 U	3.3 U	2.5 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 UJ
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	25 U	17 U	6.2 U	10 U	25 U	10 U	25 U	8.3 U	17 U	12 U
Methyl acetate	mg/L	50 U	33 U	12 U	20 U	50 U	20 UJ	50 U	17 U	33 U	25 U
Methyl cyclohexane	mg/L	5 U	3.3 U	1.2 UJ	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Methyl tert butyl ether (MTBE)	mg/L	25 U	17 U	6.2 U	10 U	25 U	10 U	25 U	8.3 U	17 U	12 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*
Sample ID:		*WG-17303-031006-EV-0962*	*WG-17303-070506-EV-023*	*WG-17303-100406-LA-055*	*WG-17303-120606-EV-018*	*WG-17303-030907-EV-025*	*WG-17303-060507-DR-003*	*WG-17303-090607-EV-016*	*GW-17303-120607-DR-026*	*WG-17303-032708-CB-028*	*WG-17303-061908-DR-022*
Sample Date:		*03/10/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*
Sample Type:											
Parameter:	***Units***										
Methylene chloride	mg/L	25 U	17 U	6.2 U	10 U	25 U	10 U	25 U	8.3 U	17 U	12 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	5 UJ	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Tetrachloroethene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Toluene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	0.46 J[d]
trans-1,2-Dichloroethene	mg/L	5 U	0.67 J[eh]	0.44 J[eh]	2 U	5 U	0.33 J[eh]	5 U	1.7 U	3.3 U	2.5 U
trans-1,3-Dichloropropene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Trichlorofluoromethane (CFC-11)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Trifluorotrichloroethane (Freon 113)	mg/L	5 U	3.3 U	1.2 U	2 U	5 U	2 U	5 U	1.7 U	3.3 U	2.5 U
Vinyl chloride	mg/L	110[bcdefhij]	110[bcdefhij]	78 J[bcdefhij]	71[bcdefhij]	120[bcdefhij]	64[bcdefhij]	110[bcdefhij]	52[bcdefhij]	86[bcdefhij]	72[bcdefhij]
Xylenes (total)	mg/L	10 UJ	6.7 U	2.5 UJ	4 U	10 U	4 U	10 U	3.3 U	6.7 U	5 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-34*	*IW-34*	*IW-34*	*IW-34*	*IW-39*	*IW-39*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-18*
Sample ID:		*WG-17303-092308-DR-034*	*WG-17303-080905-DR-0852*	*WG-17303-080905-DR-0853*	*WG-17303-080905-DR-0854*	*WG-17303-080905-DR-0855*	*GW-17303-030106-NR-0936*	*GW-17303-030106-NR-0937*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-18*
Sample Date:		*09/23/2008*	*08/09/2005*	*08/09/2005*	*08/09/2005*	*08/09/2005*	*03/01/2006*	*03/01/2006*	*04/24/1996*	*02/01/1997*	*05/01/1997*	*08/01/1997*	*11/01/1997*	*02/01/1997*
Sample Type:								*Duplicate*						
Parameter:	*Units*													
VOCs														
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	1.4 UJ	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	**0.71 dehi**	-	-	**0.15 deh**	**0.058 eh**	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	7.1 U	12 U	12 U	12 U	12 U	7.1 U	7.1 U	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	0.01 U	-	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	36 U	62 U	62 U	62 U	62 U	36 U	36 U	-	-	-	-	-	-
2-Hexanone	mg/L	71 U	120 U	120 U	120 U	120 U	71 U	71 U	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	71 U	120 U	120 U	120 U	120 U	**5 J h**	**5.1 J h**	-	-	-	-	-	-
Acetone	mg/L	36 U	62 U	**3.6 J deh**	**4.6 J deh**	**4.2 J deh**	36 U	36 U	-	-	-	-	-	-
Benzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	10 U	**0.19 eh**	**0.19 eh**	**0.11 eh**	0.001 U
Bromodichloromethane	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Bromoform	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Carbon disulfide	mg/L	7.1 U	12 U	12 U	12 U	12 U	7.1 U	7.1 U	-	-	-	-	-	-
Carbon tetrachloride	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Chlorobenzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	0.01 U	-	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	**2.6 deh**	**14 dehj**	**13 dehj**	**14 dehj**	**13 dehj**	**1 J deh**	**1 J deh**	**140 dehij**	**62 dehj**	-	**13 dehj**	**13 dehj**	0.0099
cis-1,3-Dichloropropene	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Cyclohexane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Dibromochloromethane	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	10 U	0.1 U	**0.04 d**	0.017	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	7.1 U	12 U	12 U	12 U	12 U	7.1 U	7.1 U	-	-	-	-	-	-
Methyl acetate	mg/L	14 U	25 U	25 U	25 U	25 U	14 U	14 U	-	-	-	-	-	-
Methyl cyclohexane	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	7.1 U	12 U	12 U	12 U	12 U	7.1 U	7.1 U	-	-	-	-	-	0.01 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-34*	*IW-34*	*IW-34*	*IW-34*	*IW-39*	*IW-39*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-18*
Sample ID:		*WG-17303-092308-DR-034*	*WG-17303-080905-DR-0852*	*WG-17303-080905-DR-0853*	*WG-17303-080905-DR-0854*	*WG-17303-080905-DR-0855*	*GW-17303-030106-NR-0936*	*GW-17303-030106-NR-0937*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-2*	*MW-18*
Sample Date:		*09/23/2008*	*08/09/2005*	*08/09/2005*	*08/09/2005*	*08/09/2005*	*03/01/2006*	*03/01/2006*	*04/24/1996*	*02/01/1997*	*05/01/1997*	*08/01/1997*	*11/01/1997*	*02/01/1997*
Sample Type:								*Duplicate*						
Parameter:	***Units***													
Methylene chloride	mg/L	7.1 U	12 U	12 U	12 U	12 U	7.1 U	7.1 U	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Tetrachloroethene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Toluene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.7 deh	1.7 deh	-	10 U	0.23	0.19	0.094	0.001 U
trans-1,2-Dichloroethene	mg/L	1.4 U	0.45 J eh	0.59 J eh	0.67 J eh	0.76 J eh	1.4 U	1.4 U	0.95 eh	10 U	-	0.96 eh	0.47 eh	0.001 U
trans-1,3-Dichloropropene	mg/L	1.4 U	2.5 UJ	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	0.5 U	10 U	-	0.069 eh	0.034 eh	0.0019
Trichlorofluoromethane (CFC-11)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	1.4 U	-	-	-	-	-	-
Vinyl chloride	mg/L	42 bcdefhij	88 bcdefhij	90 bcdefhij	95 bcdefhij	100 bcdefhij	34 J bcdefhij	35 bcdefhij	83 bcdefhij	140 bcdefhij	-	44 bcdefhij	49 bcdefhij	0.0079 eh
Xylenes (total)	mg/L	2.9 U	5 U	5 U	5 U	5 U	2.9 U	2.9 U	-	10 U	0.24 d	0.2 d	0.083 d	0.0021

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW-18*	*MW-18*	*MW-18*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-10*	*MW19-10*	*MW19-25*
Sample ID:		*MW-18*	*MW-18*	*MW-18*	*GW-17303-120103-DCR-254*	*GW-17303-120103-DCR-255*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*	*WG-17303-121305-NR-0907*	*GW-17303-120103-DCR-250*	*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*
Sample Date:		*05/01/1997*	*08/01/1997*	*11/01/1997*	*12/01/2003*	*12/01/2003*	*06/16/2005*	*06/16/2005*	*12/13/2005*	*12/01/2003*	*06/16/2005*	*06/16/2005*
Sample Type:						*Duplicate*		*Duplicate*				
Parameter:	***Units***											
VOCs												
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,1,2,2-Tetrachloroethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,1,2-Trichloroethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,1-Dichloroethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,1-Dichloroethene	mg/L	-	0.001 U	0.001 U	0.2 U	0.2 U	**0.065 J[eh]**	**0.064 J[eh]**	**0.034 J[eh]**	3.3 U	3.3 U	0.071 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	-	-	-	1 U	1 U	1 U	1 U	1.3 U	17 U	17 U	0.36 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,2-Dichlorobenzene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,2-Dichloroethane	mg/L	-	0.001 U	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	-	-	-	5 U	5 U	5 U	5 U	6.3 U	83 U	83 U	1.8 U
2-Hexanone	mg/L	-	-	-	10 U	10 U	10 U	10 U	13 U	170 U	170 U	3.6 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	-	-	-	10 U	10 U	10 U	10 U	13 U	170 U	170 U	3.6 U
Acetone	mg/L	-	-	-	5 U	5 U	**3 J[deh]**	**3.4 J[deh]**	6.3 U	83 U	**56 J[dehj]**	**1.3 J[h]**
Benzene	mg/L	0.001 U	0.005 U	0.005 U	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Bromodichloromethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Bromoform	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Bromomethane (Methyl bromide)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Carbon disulfide	mg/L	-	-	-	1 U	1 U	1 U	1 U	1.3 U	17 U	17 U	0.36 U
Carbon tetrachloride	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Chlorobenzene	mg/L	-	0.001 U	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Chloroform (Trichloromethane)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Chloromethane (Methyl chloride)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
cis-1,2-Dichloroethene	mg/L	-	0.001 U	0.001 U	**6.7[deh]**	**6.6[deh]**	**5.9[deh]**	**5.5[deh]**	**4.3[deh]**	**90[dehj]**	**78[dehj]**	**0.65[deh]**
cis-1,3-Dichloropropene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Cyclohexane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Dibromochloromethane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	-	-	-	1 U	1 U	1 U	1 U	1.3 U	17 U	17 U	0.36 U
Methyl acetate	mg/L	-	-	-	2 U	2 U	2 U	2 U	2.5 U	33 U	33 U	0.71 U
Methyl cyclohexane	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	1 U	1 U	1 U	1 U	1.3 U	17 U	17 U	0.36 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW-18*	*MW-18*	*MW-18*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-09*	*MW19-10*	*MW19-10*	*MW19-25*
Sample ID:		*MW-18*	*MW-18*	*MW-18*	*GW-17303-120103-DCR-254*	*GW-17303-120103-DCR-255*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*	*WG-17303-121305-NR-0907*	*GW-17303-120103-DCR-250*	*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*
Sample Date:		*05/01/1997*	*08/01/1997*	*11/01/1997*	*12/01/2003*	*12/01/2003*	*06/16/2005*	*06/16/2005*	*12/13/2005*	*12/01/2003*	*06/16/2005*	*06/16/2005*
Sample Type:						*Duplicate*		*Duplicate*				
Parameter:	***Units***											
Methylene chloride	mg/L	-	-	-	1 U	1 U	0.076 J[eh]	0.091 J[eh]	1.3 U	17 U	1.1 J[eh]	0.017 J[eh]
m-Xylene	mg/L	-	-	-	-	-	-	-	0.5 U	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	0.25 U	-	-	-
Styrene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Tetrachloroethene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
trans-1,2-Dichloroethene	mg/L	-	0.001 U	0.001 U	0.37[eh]	0.37[eh]	0.24[eh]	0.22[eh]	0.17 J[eh]	4.6[deh]	1.4 J[eh]	0.071 U
trans-1,3-Dichloropropene	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	-	0.001 U	0.001 U	3.6[dehj]	3.6[dehj]	4.3[dehj]	4.3[dehj]	4.6[dehj]	22[dehij]	9.9[dehj]	2.3[deh]
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	3.3 U	3.3 U	0.071 U
Vinyl chloride	mg/L	-	0.001 U	0.001 U	4.3[cdehi]	4.2[cdehi]	7[cdehi]	5.7[cdehi]	2.4[cdehi]	6.2[cdehi]	6.9[cdehi]	0.071 U
Xylenes (total)	mg/L	0.0021	0.003 U	0.003 U	0.4 U	0.4 U	0.4 U	0.4 U	0.75 U	6.7 U	1.5 J[dehj]	0.14 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*PZ-1*	*PZ-1*	*PZ-1*	*PZ-1*	*PZ-1*	*PZ-1*	*PZ-1*	*PZ-2*	*PZ-2*
Sample ID:		*GW-11905-101400-BW-038*	*GW-11905-111000-BW-043*	*GW-11905-011201-BN-046*	*GW-11905-021201-EH-049*	*GW-11905-032101-BN-052*	*GW-11905-041701-EH-056*	*GW-17303-052401-EH-060*	*GW-11905-101400-BW-039*	*GW-11905-032101-BN-053*
Sample Date:		*10/14/2000*	*11/10/2000*	*01/12/2001*	*02/12/2001*	*03/21/2001*	*04/17/2001*	*05/24/2001*	*10/14/2000*	*03/21/2001*
Sample Type:										
Parameter:	***Units***									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.003	0.001 U
1,1,2-Trichloroethane	mg/L	**0.013**[eh]	0.001 U	0.001 J	0.002	0.001 U	0.002	0.001 U	**0.007**[eh]	0.005
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	**0.65**[dehi]	**0.37 J**[dehi]	**0.16 J**[deh]	**0.18**[deh]	**0.094**[eh]	**0.24**[dehi]	**0.049**[eh]	**0.82**[dehi]	**0.41 J**[dehi]
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.013	**0.036**[d]	0.016 J	**0.046**[d]	**0.057**[d]	**0.038**[d]	**0.027**[d]	**0.022**[d]	**0.081**[deh]
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.002	0.001 U	0.001 J	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	**19.2**[j]	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.003	0.009	0.004 J	0.012	0.016	0.011	0.001 U	0.005	0.025
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.16	0.05 U	0.24 J	0.05 U	0.054	0.1	0.05 U	0.05 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.058 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.1 U	**0.96**[h]	0.3 J	**1.2 J**[h]	0.15	0.32	**0.94 J**[h]	0.22	0.12
Benzene	mg/L	**0.088**[eh]	**0.073**[eh]	**0.09 J**[eh]	**0.12**[eh]	**0.12**[eh]	**0.13**[eh]	**0.1**[eh]	**0.13**[eh]	**0.074**[eh]
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001 U
cis-1,2-Dichloroethene	mg/L	**56**[dehj]	**43**[dehj]	**18**[dehj]	**20**[dehj]	**7.3**[deh]	**18**[dehj]	**6.2**[deh]	**72**[dehj]	**60**[dehj]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.005 U	0.005 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethylbenzene	mg/L	**0.17**[deh]	**0.22 J**[deh]	**0.12 J**[deh]	**0.26 J**[deh]	**0.24 J**[deh]	**0.21**[deh]	**0.14**[deh]	**0.28 J**[deh]	**0.37 J**[dehj]
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropyl benzene	mg/L	0.009	0.007	0.001 U	0.008	0.009	0.007	0.006	0.008	0.001 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***PZ-1***	***PZ-1***	***PZ-1***	***PZ-1***	***PZ-1***	***PZ-1***	***PZ-1***	***PZ-2***	***PZ-2***
Sample ID:		***GW-11905-101400-BW-038***	***GW-11905-111000-BW-043***	***GW-11905-011201-BN-046***	***GW-11905-021201-EH-049***	***GW-11905-032101-BN-052***	***GW-11905-041701-EH-056***	***GW-17303-052401-EH-060***	***GW-11905-101400-BW-039***	***GW-11905-032101-BN-053***
Sample Date:		***10/14/2000***	***11/10/2000***	***01/12/2001***	***02/12/2001***	***03/21/2001***	***04/17/2001***	***05/24/2001***	***10/14/2000***	***03/21/2001***
Sample Type:										
Parameter:	***Units***									
Methylene chloride	mg/L	0.023 eh	0.037 eh	0.005 U	0.008 eh	0.005 U	0.008 eh	0.025 eh	0.019 eh	0.042 eh
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.008	0.013 d	0.015 J d	0.021 d	0.049 d	0.025 d	0.016 d	0.01	0.031 d
N-Propylbenzene	mg/L	0.003	0.005	0.003 J	0.007	0.011	0.007	0.006	0.005	0.016
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001	0.001 U	0.001 U	0.001
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.5 U	0.36 J d	0.13 J	-	0.19 J	0.16	0.083	0.53 d	0.46 J d
trans-1,2-Dichloroethene	mg/L	4.5 deh	2.6 deh	1.2 eh	1.1 eh	0.62 J eh	1.4 eh	0.6 eh	4.6 deh	5 deh
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	66 cdehij	32 cdehij	1.9 deh	2.6 deh	1.7 deh	5.7 dehj	0.9 deh	24 cdehij	10 dehj
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	8.9 cdehi	2.6 cdehi	4.8 cdehi	3.8 cdehi	2.9 cdehi	5.7 cdehi	3 cdehi	12 cdehi	18 cdefhij
Xylenes (total)	mg/L	0.32 deh	0.55 deh	0.26 J d	0.59 deh	0.47 J deh	0.52 deh	0.316 deh	0.58 deh	1.47 J dehj

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*PZ-2A*	*PZ-2A*	*PZ-2A*	*PZ-2A*	*PZ-3*	*PZ-3*	*PZ-3*	*PZ-3*	*PZ-3*
Sample ID:		*GW-11905-011201-BN-048*	*GW-11905-021201-EH-050*	*GW-11905-041701-EH-057*	*GW-17303-052401-EH-061*	*GW-11905-101400-BW-040*	*GW-11905-111000-BW-044*	*GW-11905-111000-BW-045*	*GW-11905-011201-BN-047*	*GW-11905-021201-EH-051*
Sample Date:		*01/12/2001*	*02/12/2001*	*04/17/2001*	*05/24/2001*	*10/14/2000*	*11/10/2000*	*11/10/2000*	*01/12/2001*	*02/12/2001*
Sample Type:								*Duplicate*		
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.002	0.006 eh	0.004	0.005	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.27 J dehi	0.14 deh	1 dehi	0.85 J dehi	1.1 dehi	1 U	1 U	1.1 J dehi	1.3 J dehi
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.045 J d	0.056 d	0.081 deh	0.069 deh	0.029 d	0.084 deh	0.087 deh	0.058 J d	0.054 d
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001	0.002	0.002	0.002	0.001 U	0.001 U	0.003 J	0.003
1,2-Dichloroethene (total)	mg/L	46.5 j	-	-	-	-	-	-	134.5 j	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.011 J	0.016	0.024	0.019	0.007	0.021	0.022	0.014 J	0.014
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.075	0.08	0.05 U	0.05 U
Acetone	mg/L	0.1 U	0.14	0.19	0.39	0.14	0.1 U	0.1 U	0.41 J	0.92 h
Benzene	mg/L	0.064 J eh	0.089 eh	0.085 eh	0.1 eh	0.18 eh	0.13 eh	0.13 eh	0.1 J eh	0.084 eh
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	44 dehj	28 dehj	130 dehij	92 dehj	100 dehij	130 dehij	160 dehij	130 dehij	110 dehij
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.005 U	0.005 U	0.005 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethylbenzene	mg/L	0.34 J dehj	0.27 J deh	0.45 J dehj	0.28 J deh	0.2 deh	0.61 J dehj	0.6 J dehj	0.5 J dehj	0.36 J dehj
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropyl benzene	mg/L	0.017 J	0.01	0.014	0.011	0.009	0.015	0.015	0.014 J	0.009
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*PZ-2A*	*PZ-2A*	*PZ-2A*	*PZ-2A*	*PZ-3*	*PZ-3*	*PZ-3*	*PZ-3*	*PZ-3*
Sample ID:		*GW-11905-011201-BN-048*	*GW-11905-021201-EH-050*	*GW-11905-041701-EH-057*	*GW-17303-052401-EH-061*	*GW-11905-101400-BW-040*	*GW-11905-111000-BW-044*	*GW-11905-111000-BW-045*	*GW-11905-011201-BN-047*	*GW-11905-021201-EH-051*
Sample Date:		*01/12/2001*	*02/12/2001*	*04/17/2001*	*05/24/2001*	*10/14/2000*	*11/10/2000*	*11/10/2000*	*01/12/2001*	*02/12/2001*
Sample Type:								*Duplicate*		
Parameter:	***Units***									
Methylene chloride	mg/L	0.009 J[eh]	0.02[eh]	0.009[eh]	0.005 U	0.008[eh]	0.005 U	0.012[eh]	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.025 J[d]	0.014[d]	0.024[d]	0.026[d]	0.011	0.02[d]	0.024[d]	0.054 J[d]	0.02[d]
N-Propylbenzene	mg/L	0.008 J	0.009	0.013	0.011	0.005	0.01	0.011	0.009 J	0.008
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.56 J[d]	0.3 J[d]	0.44 J[d]	0.36 J[d]	0.67[d]	0.89 J[deh]	1 U	1 U	0.37 J[d]
trans-1,2-Dichloroethene	mg/L	2.5[deh]	2[deh]	8.7[deh]	6.9[deh]	4.9[deh]	5.5[deh]	5.8[deh]	4.5[deh]	3.6[deh]
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	12[dehj]	1.7[deh]	10[dehj]	2.2[deh]	34 J[cdehij]	23[cdehij]	23[cdehij]	17 J[dehij]	1 J[deh]
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	160 J[bcdefhij]	7.9[cdehi]	28[cdefhij]	14[cdefhi]	20[cdefhij]	18[cdefhij]	20[cdefhij]	43 J[bcdefhij]	8.9[cdehi]
Xylenes (total)	mg/L	0.72 J[deh]	0.64 J[deh]	1.1 J[dehj]	0.98 J[dehj]	0.58[deh]	1.78[dehj]	1.67[dehj]	3 U	1.1[dehj]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*PZ-3*	*PZ-3*	*PZ-3*	*BH10-99*	*BH11-99*	*GP-7*	*GS-1*	*GS-1*	*GS-1*	*GS-2*
Sample ID:		*GW-11905-032101-BN-054*	*GW-11905-041701-EH-058*	*GW-17303-052401-EH-062*	*W-1190511-111899-SN-017*	*W-1190511-111899-SN-016*	*GP-7*	*GW-17303-031303-BL-178*	*GW-17303-031303-BL-179*	*GW-17303-012904-MM-288*	*GW-17303-031303-BL-180*
Sample Date:		*03/21/2001*	*04/17/2001*	*05/24/2001*	*11/18/1999*	*11/18/1999*	*04/19/1996*	*03/13/2003*	*03/13/2003*	*01/29/2004*	*03/13/2003*
Sample Type:									*Duplicate*		
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	-	0.001 U
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.005 U	-	0.001 U	0.001 U	1.7 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.005 U	-	0.001 U	0.001 U	1.7 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001	0.001	1.7 U	0.001 U
1,1-Dichloroethene	mg/L	0.86 J[dehi]	0.93 J[dehi]	0.84 J[dehi]	0.01 U	0.005 U	0.25 U	0.004	0.004	1.7 U	0.022[eh]
1,2,3-Trichloropropane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	-	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	0.001 U	0.001 U	8.3 U	0.001 U
1,2,4-Trimethylbenzene	mg/L	0.12[deh]	0.16[deh]	0.22 J[deh]	0.005 U	0.005 U	-	0.001 U	0.001 U	-	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-	-	-	-	-	1.7 U	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.005 U	-	0.001 U	0.001 U	1.7 U	0.001 U
1,2-Dichloroethane	mg/L	0.005	0.004	0.003	-	-	-	0.002	0.002	1.7 U	0.001
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.037	0.048[d]	0.06[d]	0.01 U	0.005 U	-	0.001 U	0.001 U	-	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.005 U	-	0.001 U	0.001 U	1.7 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.005 U	-	0.001 U	0.001 U	1.7 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.5 U	0.25 U	-	0.025 U	0.025 U	42 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	-	-	-	0.05 U	0.05 U	83 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.067	0.067	0.05 U	-	-	-	0.05 U	0.05 U	83 U	0.05 U
Acetone	mg/L	0.29	0.53	0.19	-	-	-	0.025 U	0.025 U	1.2 J[h]	0.025 U
Benzene	mg/L	0.11[eh]	0.15[eh]	0.12[eh]	0.0423[eh]	0.0734[eh]	-	0.17[eh]	0.17[eh]	1.7 U	0.078[eh]
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	0.005 U	0.005 U	8.3 U	0.005 U
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001	0.002	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	-	0.001 U
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.096	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
cis-1,2-Dichloroethene	mg/L	98[dehij]	100[dehij]	150[dehij]	2.04[deh]	0.803[deh]	18[dehj]	3.7[deh]	8.2[deh]	1.6 J[deh]	8.2[deh]
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	1.7 U	-
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Dibromomethane	mg/L	0.005 U	0.005 U	0.001 U	-	-	-	0.001 U	0.001 U	-	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Ethyl ether	mg/L	0.05 U	0.05 U	0.05 U	-	-	-	0.02 U	0.02 U	-	0.02 U
Ethylbenzene	mg/L	0.63 J[dehj]	0.94 J[dehj]	0.84 J[dehj]	0.01 U	0.005 U	-	0.002	0.002	1.7 U	0.001 U
Iodomethane	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.01 U	0.01 U	-	0.01 U
Isopropyl benzene	mg/L	0.023	0.029[d]	0.032[d]	-	-	-	0.005 U	0.005 U	8.3 U	0.005 U
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	17 U	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	1.7 U	-
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-	-	-	-	-	8.3 U	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*PZ-3*	*PZ-3*	*PZ-3*	*BH10-99*	*BH11-99*	*GP-7*	*GS-1*	*GS-1*	*GS-1*	*GS-2*
Sample ID:		*GW-11905-032101-BN-054*	*GW-11905-041701-EH-058*	*GW-17303-052401-EH-062*	*W-1190511-111899-SN-017*	*W-1190511-111899-SN-016*	*GP-7*	*GW-17303-031303-BL-178*	*GW-17303-031303-BL-179*	*GW-17303-012904-MM-288*	*GW-17303-031303-BL-180*
Sample Date:		*03/21/2001*	*04/17/2001*	*05/24/2001*	*11/18/1999*	*11/18/1999*	*04/19/1996*	*03/13/2003*	*03/13/2003*	*01/29/2004*	*03/13/2003*
Sample Type:									*Duplicate*		
Parameter:	***Units***										
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	0.005 U	0.005 U	8.3 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.048 d	0.072 d	0.092 d	0.05 U	0.025 U	-	0.005 U	0.005 U	-	0.005 U
N-Propylbenzene	mg/L	0.02	0.024	0.03	0.01 U	0.005 U	-	0.005 U	0.005 U	-	0.005 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.005	0.006	0.006	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
Toluene	mg/L	0.65 J d	0.73 J d	0.78 J d	0.01 U	0.0322	-	0.11	0.11	1.7 U	0.014
trans-1,2-Dichloroethene	mg/L	3.4 deh	3.9 deh	5.3 deh	0.117 eh	0.0369	0.4 eh	0.11 eh	0.11 eh	1.7 U	0.27 J eh
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	0.001 U	0.001 U	1.7 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.002 U	0.002 U	0.002 U	-	-	-	0.05 U	0.05 U	-	0.05 U
Trichloroethene	mg/L	0.033 eh	0.037 eh	0.024 eh	0.0473 eh	0.005 U	0.25 U	0.022 eh	0.021 eh	1.7 U	0.002
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-	-	-	-	-	1.7 U	-
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-	-	-	-	-	1.7 U	-
Vinyl chloride	mg/L	21 cdefhij	24 cdefhij	24 cdefhij	20.7 cdefhij	13.2 cdefhi	16 cdefhi	51 bcdefhij	44 bcdefhij	44 bcdefhij	34 bcdefhij
Xylenes (total)	mg/L	2.2 J dehj	2.5 J dehj	3 U	0.015 U	0.015 U	-	0.003 U	0.003 U	3.3 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-2*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*GW-17303-012804-MM-283*	*GW-17303-040303-Kh-185*	*17303-062703-HH-GS3-211*	*GW-17303-120203-DCR-260*	*GW-17303-040104-DCR-310*	*GW-17303-070104-DR-377*	*GW-17303-092304-DCR-644*	*GW-17303-121004-DCR-663*	*GW-17303-031105-DR-695*
Sample Date:		*01/28/2004*	*04/03/2003*	*06/27/2003*	*12/02/2003*	*04/01/2004*	*07/01/2004*	*09/23/2004*	*12/10/2004*	*03/11/2005*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,1,2-Trichloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,1-Dichloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,1-Dichloroethene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,2,3-Trichloropropane	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	4.2 U	0.001 U	0.001 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U
1,2,4-Trimethylbenzene	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.83 U	-	-	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,2-Dichlorobenzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,2-Dichloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,3,5-Trimethylbenzene	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	21 U	0.025 U	0.025 U	0.025 U	0.025 U	1.2 U	1.7 U	0.38 U	1.3 U
2-Hexanone	mg/L	42 U	0.05 U	0.05 U	0.05 U	0.05 U	2.5 U	3.3 U	0.77 U	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	42 U	0.05 U	0.05 U	0.05 U	0.05 U	2.5 U	3.3 U	0.77 U	2.5 U
Acetone	mg/L	21 U	0.025 U	0.025 U	0.025 U	0.025 U	0.053 J	1.7 U	0.38 U	1.3 U
Benzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Bromodichloromethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Bromoform	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Bromomethane (Methyl bromide)	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 UJ
Carbon disulfide	mg/L	4.2 U	0.005 U	0.005 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U
Carbon tetrachloride	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Chlorobenzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Chlorobromomethane	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
Chloroethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Chloroform (Trichloromethane)	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Chloromethane (Methyl chloride)	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
cis-1,2-Dichloroethene	mg/L	**6.9**[deh]	0.014	0.003	0.0025	0.00066 J	**0.13**[eh]	**0.19**[eh]	**0.081**[eh]	0.068
cis-1,3-Dichloropropene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Cyclohexane	mg/L	0.83 U	-	-	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Dibromochloromethane	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Dibromomethane	mg/L	-	0.001 U	0.001 U	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Ethyl ether	mg/L	-	0.02 U	0.02 U	-	-	-	-	-	-
Ethylbenzene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Iodomethane	mg/L	-	0.01 U	0.01 U	-	-	-	-	-	-
Isopropyl benzene	mg/L	4.2 U	0.005 U	0.005 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U
Methyl acetate	mg/L	8.3 U	-	-	0.01 U	0.01 U	0.5 U	0.67 U	0.15 U	0.5 U
Methyl cyclohexane	mg/L	0.83 U	-	-	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Methyl tert butyl ether (MTBE)	mg/L	4.2 U	-	-	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-2*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*GW-17303-012804-MM-283*	*GW-17303-040303-Kh-185*	*17303-062703-HH-GS3-211*	*GW-17303-120203-DCR-260*	*GW-17303-040104-DCR-310*	*GW-17303-070104-DR-377*	*GW-17303-092304-DCR-644*	*GW-17303-121004-DCR-663*	*GW-17303-031105-DR-695*
Sample Date:		*01/28/2004*	*04/03/2003*	*06/27/2003*	*12/02/2003*	*04/01/2004*	*07/01/2004*	*09/23/2004*	*12/10/2004*	*03/11/2005*
Sample Type:										
Parameter:	***Units***									
Methylene chloride	mg/L	0.53 J[eh]	0.005 U	0.005 U	0.005 U	0.005 U	0.25 U	0.33 U	0.077 U	0.25 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	0.1 U
Naphthalene	mg/L	-	0.005 U	0.005 U	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	0.005 U	0.005 U	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	0.05 U
Styrene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Tetrachloroethene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Toluene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
trans-1,2-Dichloroethene	mg/L	0.24 J[eh]	0.001 U	0.001 U	0.00033 J	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
trans-1,3-Dichloropropene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
trans-1,4-Dichloro-2-butene	mg/L	-	0.05 U	0.05 U	-	-	-	-	-	-
Trichloroethene	mg/L	0.83 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Trichlorofluoromethane (CFC-11)	mg/L	0.83 U	-	-	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.83 U	-	-	0.001 U	0.001 U	0.05 U	0.067 U	0.015 U	0.05 U
Vinyl chloride	mg/L	19[cdefhij]	0.033[deh]	0.007[eh]	0.013[eh]	0.0018	1.2[cdehi]	1.5[cdehi]	0.45[deh]	0.58[deh]
Xylenes (total)	mg/L	1.7 U	0.003 U	0.003 U	0.002 U	0.002 U	0.1 U	0.13 U	0.031 U	0.15 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*WG-17303-062305-DR-0829*	*WG-17303-100605-AB-0895*	*WG-17303-121405-AB-0915*	*WG-17303-031006-EV-0950*	*WG-17303-062706-EV-001*	*WG-17303-100306-EV-037*	*WG-17303-120506-LA-006*	*WG-17303-030707-DR-002*	*WG-17303-060607-EV-023*
Sample Date:		*06/23/2005*	*10/06/2005*	*12/14/2005*	*03/10/2006*	*06/27/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 UJ
1,1,2-Trichloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,1-Dichloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,1-Dichloroethene	mg/L	0.00076 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	0.02 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,2-Dichloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	0.02 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.00011 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	3.1 U	1.3 U	0.00084 J	0.83 U	0.025 U	0.56 U	0.71 U	0.5 U
2-Hexanone	mg/L	0.05 U	6.3 U	2.5 U	0.072 U	1.7 U	0.05 U	1.1 U	1.4 U	1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	6.3 U	2.5 U	0.072 UJ	1.7 U	0.05 U	1.1 U	1.4 U	1 UJ
Acetone	mg/L	0.025 U	0.6 J	1.3 U	0.036 U	0.83 U	0.025 U	0.56 U	0.71 U	0.5 U
Benzene	mg/L	**0.0059**[eh]	0.13 U	0.05 U	0.00041 J	0.033 U	0.001 U	0.022 U	0.029 U	**0.0051 J**[eh]
Bromodichloromethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 UJ	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Bromoform	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Carbon disulfide	mg/L	0.00039 J	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U
Carbon tetrachloride	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Chlorobenzene	mg/L	0.00028 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
cis-1,2-Dichloroethene	mg/L	**0.18**[eh]	**0.14**[eh]	**0.16**[eh]	0.0092 J	**0.096**[eh]	0.001 U	0.058	0.064	0.067
cis-1,3-Dichloropropene	mg/L	0.001 U	0.13 UJ	0.05 U	0.0014 UJ	0.033 UJ	0.001 U	0.022 U	0.029 U	0.02 U
Cyclohexane	mg/L	0.00061 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Dibromochloromethane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U
Methyl acetate	mg/L	0.01 U	1.3 UJ	0.5 U	0.014 U	0.33 U	0.01 U	0.22 U	0.29 U	0.2 U
Methyl cyclohexane	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 UJ	0.001 U	0.022 U	0.029 U	0.02 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.63 U	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*WG-17303-062305-DR-0829*	*WG-17303-100605-AB-0895*	*WG-17303-121405-AB-0915*	*WG-17303-031006-EV-0950*	*WG-17303-062706-EV-001*	*WG-17303-100306-EV-037*	*WG-17303-120506-LA-006*	*WG-17303-030707-DR-002*	*WG-17303-060607-EV-023*
Sample Date:		*06/23/2005*	*10/06/2005*	*12/14/2005*	*03/10/2006*	*06/27/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*
Sample Type:										
Parameter:	*Units*									
Methylene chloride	mg/L	0.005 U	0.017 J[eh]	0.25 U	0.0072 U	0.17 U	0.005 U	0.11 U	0.14 U	0.1 U
m-Xylene	mg/L	0.002 U	0.25 U	0.1 U	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.00022 J	0.13 U	0.05 U	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 UJ	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Tetrachloroethene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Toluene	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
trans-1,2-Dichloroethene	mg/L	0.0088	0.13 U	0.006 J	0.0003 J	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.13 UJ	0.05 U	0.0014 U	0.033 UJ	0.001 UJ	0.022 U	0.029 U	0.02 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.00069 J	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.13 U	0.05 U	0.0014 U	0.033 U	0.001 U	0.022 U	0.029 U	0.02 U
Vinyl chloride	mg/L	2.4[cdehi]	2[cdehi]	1.2[cdehi]	0.037[deh]	0.99[deh]	0.0011	0.63[deh]	0.62[deh]	0.61[deh]
Xylenes (total)	mg/L	0.00022 J	0.38 U	0.15 U	0.0029 UJ	0.067 U	0.002 U	0.044 U	0.057 U	0.04 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-4*
Sample ID:		*WG-17303-090707-EV-031*	*WG-17303-120707-DR-033*	*WG-17303-032708-CB-023*	*WG-17303-061908-CB-026*	*WG-17303-092508-DR-048*	*WG-17303-121008-CB-070*	*WG-17303-032709-LS-096*	*WG-17303-041310-CB-011*	*WG-17303-102610-DR-020*	*GW-17303-040303-Kh-184*
Sample Date:		*09/07/2007*	*12/07/2007*	*03/27/2008*	*06/19/2008*	*09/25/2008*	*12/10/2008*	*03/27/2009*	*04/13/2010*	*10/26/2010*	*04/03/2003*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	0.001 U
1,1,1-Trichloroethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 UJ	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U	0.001 U
1,2,4-Trimethylbenzene	mg/L	0.012 U	0.01 U	-	-	-	-	-	-	-	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	-
1,2-Dichlorobenzene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.012 U	0.01 U	-	-	-	-	-	-	-	0.001 U
1,3-Dichlorobenzene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.31 U	0.25 U	0.025 U	0.5 U	0.1 U	0.062 U	0.062 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.62 U	0.5 U	0.05 U	1 U	0.2 U	0.12 U	0.12 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.62 U	0.5 U	0.05 U	1 U	0.2 U	0.12 U	0.12 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.31 U	0.25 U	0.025 U	0.5 U	0.1 U	0.062 U	0.062 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.0046 J	0.0035 J	0.001 U	0.02 U	0.0014 J	0.0025 U	0.0076 [ch]	0.00076 J	0.00079 J	0.001 U
Bromodichloromethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	0.001 U
Chloroethane	mg/L	0.012 U	0.01 U	0.001 UJ	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.049	0.034	0.0046	0.048	0.016	0.0062	0.01	0.0023	0.0028	0.001 U
cis-1,3-Dichloropropene	mg/L	0.012 U	0.01 U	0.001 U	0.02 UJ	0.004 U	0.0025 UJ	0.0025 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0011 J	0.0006 J	0.001 U	-
Dibromochloromethane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 UJ	0.0025 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	0.02 U
Ethylbenzene	mg/L	0.012 U	0.01 U	0.001 U	0.02 UJ	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	0.01 U
Isopropyl benzene	mg/L	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	0.12 U	0.1 U	0.01 U	0.2 U	0.04 U	0.025 U	0.025 U	0.01 U	0.01 U	-
Methyl cyclohexane	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	-
Methyl tert butyl ether (MTBE)	mg/L	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.00054 J	0.005 U	0.005 U	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-4*
Sample ID:		*WG-17303-090707-EV-031*	*WG-17303-120707-DR-033*	*WG-17303-032708-CB-023*	*WG-17303-061908-CB-026*	*WG-17303-092508-DR-048*	*WG-17303-121008-CB-070*	*WG-17303-032709-LS-096*	*WG-17303-041310-CB-011*	*WG-17303-102610-DR-020*	*GW-17303-040303-Kh-184*
Sample Date:		*09/07/2007*	*12/07/2007*	*03/27/2008*	*06/19/2008*	*09/25/2008*	*12/10/2008*	*03/27/2009*	*04/13/2010*	*10/26/2010*	*04/03/2003*
Sample Type:											
Parameter:	***Units***										
Methylene chloride	mg/L	0.062 U	0.05 U	0.005 U	0.1 U	0.02 U	0.012 U	0.012 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	0.005 U
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	0.005 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0018 J	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 UJ	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	0.05 U
Trichloroethene	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.012 U	0.01 U	0.001 U	0.02 U	0.004 U	0.0025 U	0.0025 U	0.001 U	0.001 U	-
Vinyl chloride	mg/L	**0.46**[deh]	**0.3**[deh]	**0.025**[deh]	**0.51**[deh]	**0.14**[deh]	**0.061**[deh]	**0.09**[deh]	**0.034**[deh]	**0.017**[deh]	**0.11**[deh]
Xylenes (total)	mg/L	0.025 U	0.02 U	0.002 U	0.04 U	0.008 U	0.005 U	0.005 U	0.002 U	0.002 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*17303-062703-HH-GS4-212*	*GW-17303-120203-DCR-261*	*GW-17303-120203-DCR-262*	*GW-17303-040104-DCR-309*	*GW-17303-070104-DR-379*	*GW-17303-092304-DCR-645*	*GW-17303-121004-DCR-664*	*GW-17303-041305-DR-697*	*WG-17303-062305-DR-0830*
Sample Date:		*06/27/2003*	*12/02/2003*	*12/02/2003*	*04/01/2004*	*07/01/2004*	*09/23/2004*	*12/10/2004*	*04/13/2005*	*06/23/2005*
Sample Type:				*Duplicate*						
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.001 U	0.005 U	0.005 U	0.05 U	0.036 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.025 U	0.25 U	0.18 U	0.025 U	0.025 U	0.025 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.5 U	0.36 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 U	0.5 U	0.36 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.25 U	0.18 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	mg/L	0.001	0.0018	0.0015	0.0031 J	0.0027 J	0.0013 U	0.0014 U	0.0016	0.0022
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.05 U	0.036 U	0.00048 J	0.005 U	0.005 U	0.0001 J
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobromomethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.002	0.001 U	0.001 U	0.01 U	0.0019 J	0.001 U	0.00027 J	0.00095 J	0.00047 J
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L	-	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethyl ether	mg/L	0.02 U	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	0.01 U	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.05 U	0.036 U	0.005 U	0.005 U	0.005 U	0.005 U
Methyl acetate	mg/L	-	0.01 U	0.01 U	0.1 U	0.071 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L	-	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	-	0.005 U	0.005 U	0.05 U	0.036 U	0.005 U	0.005 U	0.005 U	0.005 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*17303-062703-HH-GS4-212*	*GW-17303-120203-DCR-261*	*GW-17303-120203-DCR-262*	*GW-17303-040104-DCR-309*	*GW-17303-070104-DR-379*	*GW-17303-092304-DCR-645*	*GW-17303-121004-DCR-664*	*GW-17303-041305-DR-697*	*WG-17303-062305-DR-0830*
Sample Date:		*06/27/2003*	*12/02/2003*	*12/02/2003*	*04/01/2004*	*07/01/2004*	*09/23/2004*	*12/10/2004*	*04/13/2005*	*06/23/2005*
Sample Type:				*Duplicate*						
Parameter:	*Units*									
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.05 U	0.036 U	0.005 U	0.005 U	0.005 U	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-	0.002 U	0.002 U
Naphthalene	mg/L	0.005 U	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	0.005 U	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.00031 J	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	0.05 U	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	-	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	0.001 U	0.001 U	0.01 U	0.0071 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	**0.25**[deh]	**0.011**[eh]	**0.01**[eh]	**0.36**[deh]	**0.15**[deh]	**0.0058**[eh]	**0.014**[deh]	**0.27 J**[deh]	**0.14**[deh]
Xylenes (total)	mg/L	0.003 U	0.002 U	0.002 U	0.02 U	0.014 U	0.002 U	0.002 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
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NLL - Hazardous substance is not likely to leach under most soil conditions.
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*WG-17303-100605-AB-0899*	*WG-17303-121405-NR-0916*	*WG-17303-031006-EV-0951*	*GW-17303-062806-EV-003*	*WG-17303-100306-EV-036*	*WG-17303-120506-LA-007*	*WG-17303-030707-DR-001*	*WG-17303-060607-EV-022*	*WG-17303-090707-DR-032*
Sample Date:		*10/06/2005*	*12/14/2005*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/07/2007*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 UJ	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 UJ	0.1 U	0.005 U	0.025 U	0.033 U	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.0067 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	0.0067 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.025 U	0.00072 J	0.025 U	0.5 U	0.025 U	0.12 U	0.17 U	0.025 U
2-Hexanone	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	1 U	0.05 U	0.25 U	0.33 U	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.05 U	0.05 UJ	0.05 U	1 U	0.05 U	0.25 U	0.33 UJ	0.05 U
Acetone	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.5 U	0.025 U	0.12 U	0.17 U	0.025 U
Benzene	mg/L	0.00065 J	0.001 U	0.00048 J	0.001 U	0.02 U	0.00044 J	0.005 U	0.0017 J	0.00049 J
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Bromoform	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 UJ	0.1 U	0.005 U	0.025 U	0.033 U	0.00053 J
Carbon tetrachloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Chlorobenzene	mg/L	0.00012 J	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	0.0014	0.001 UJ	0.001 U	0.07	0.001 U	0.005 U	0.0024 J	0.00022 J
cis-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Dibromochloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.1 U	0.005 U	0.025 U	0.033 U	0.005 U
Methyl acetate	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.2 U	0.01 U	0.05 U	0.067 U	0.01 U
Methyl cyclohexane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.1 U	0.005 U	0.025 U	0.033 U	0.005 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*WG-17303-100605-AB-0899*	*WG-17303-121405-NR-0916*	*WG-17303-031006-EV-0951*	*GW-17303-062806-EV-003*	*WG-17303-100306-EV-036*	*WG-17303-120506-LA-007*	*WG-17303-030707-DR-001*	*WG-17303-060607-EV-022*	*WG-17303-090707-DR-032*
Sample Date:		*10/06/2005*	*12/14/2005*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/07/2007*
Sample Type:										
Parameter:	***Units***									
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.1 U	0.005 U	0.025 U	0.033 U	0.005 U
m-Xylene	mg/L	0.002 U	0.002 U	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	0.001 U	0.001 U	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 UJ	0.001 U	0.005 U	0.0067 U	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.00011 J	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.02 U	0.001 U	0.005 U	0.0067 U	0.001 U
Vinyl chloride	mg/L	0.001 U	0.0028[eh]	0.017[deh]	0.001 U	0.8[deh]	0.0033[eh]	0.099[deh]	0.2[deh]	0.0065[eh]
Xylenes (total)	mg/L	0.003 U	0.003 U	0.002 UJ	0.002 U	0.04 U	0.002 U	0.01 U	0.013 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*MW-3*	*MW-3*
Sample ID:		*WG-17303-120707-DR-034*	*WG-17303-032608-MC-024*	*WG-17303-061908-CB-025*	*WG-17303-092408-CB-049*	*WG-17303-121008-CB-071*	*WG-17303-032709-CB-097*	*WG-17303-041310-CB-004*	*WG-17303-102510-DR-018*	*MW-3*	*W-1190507-090399-SN-012*
Sample Date:		*12/07/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/10/2008*	*03/27/2009*	*04/13/2010*	*10/25/2010*	*04/24/1996*	*09/03/1999*
Sample Type:											
Parameter:	*Units*										
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 UJ	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.001 U
1,1-Dichloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
1,1-Dichloroethene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	0.5 U	**0.05[eh]**
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.0084 U	0.025 U	0.005 U	0.005 U	0.0084 U	0.01 U	0.005 U	-	-
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.001 U
1,2-Dichloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.042 U	0.12 U	0.025 U	0.025 U	0.042 U	0.05 U	0.025 U	-	0.05 U
2-Hexanone	mg/L	0.05 U	0.084 U	0.25 U	0.05 U	0.05 U	0.084 U	0.1 U	0.05 U	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	0.084 U	0.25 U	0.05 U	0.05 U	0.084 U	0.1 U	0.05 U	-	-
Acetone	mg/L	0.025 U	0.042 U	0.12 U	0.025 U	0.025 U	0.0049 J	0.05 U	0.025 U	-	-
Benzene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.00033 J	0.00086 J	0.0012 J	0.00055 J	-	**0.19[eh]**
Bromodichloromethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Bromoform	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 UJ	0.001 U	-	-
Carbon disulfide	mg/L	0.005 U	0.0084 U	0.025 U	0.005 U	0.005 U	0.0084 U	0.01 U	0.005 U	-	-
Carbon tetrachloride	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Chlorobenzene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Chloroform (Trichloromethane)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
cis-1,2-Dichloroethene	mg/L	0.001 U	0.0017 U	0.005 U	0.0023	0.001 U	0.0017 U	0.002 U	0.0004 J	**9.8[deh]**	**24[dehj]**
cis-1,3-Dichloropropene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Cyclohexane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Dibromochloromethane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 UJ	0.001 U	-	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.0017 U	0.005 UJ	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.007
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	0.0084 U	0.025 U	0.005 U	0.005 U	0.0084 U	0.01 U	0.005 U	-	-
Methyl acetate	mg/L	0.01 U	0.017 U	0.05 U	0.01 U	0.01 U	0.017 U	0.02 U	0.01 U	-	-
Methyl cyclohexane	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.0084 U	0.025 U	0.005 U	0.005 U	0.0084 U	0.01 U	0.005 U	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*MW-3*	*MW-3*
Sample ID:		*WG-17303-120707-DR-034*	*WG-17303-032608-MC-024*	*WG-17303-061908-CB-025*	*WG-17303-092408-CB-049*	*WG-17303-121008-CB-071*	*WG-17303-032709-CB-097*	*WG-17303-041310-CB-004*	*WG-17303-102510-DR-018*	*MW-3*	*W-1190507-090399-SN-012*
Sample Date:		*12/07/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/10/2008*	*03/27/2009*	*04/13/2010*	*10/25/2010*	*04/24/1996*	*09/03/1999*
Sample Type:											
Parameter:	***Units***										
Methylene chloride	mg/L	0.005 U	0.0084 U	0.025 U	0.005 U	0.005 U	0.0084 U	0.01 U	0.005 U	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	0.005 U
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-	0.001 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Tetrachloroethene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 UJ	0.0017 U	0.002 U	0.001 U	-	-
Toluene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	0.19
trans-1,2-Dichloroethene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	0.7[eh]	1.2[eh]
trans-1,3-Dichloropropene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 UJ	0.001 UJ	0.0017 U	0.002 UJ	0.001 U	-	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	0.5 U	0.001
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.0017 U	0.005 U	0.001 U	0.001 U	0.0017 U	0.002 U	0.001 U	-	-
Vinyl chloride	mg/L	0.002	0.039[deh]	0.12[deh]	0.0038[eh]	0.0023[eh]	0.037[deh]	0.06[deh]	0.0048[eh]	20[cdefhij]	28[cdefhij]
Xylenes (total)	mg/L	0.002 U	0.0033 U	0.01 UJ	0.002 U	0.002 U	0.0033 U	0.004 U	0.002 U	-	0.021

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW-3*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*
Sample ID:		*GW-17303-112602-MM-152*	*GW-17303-120103-DCR-252*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-063006-EV-016*	*WG-17303-063006-EV-017*	*WG-17303-100306-EV-040*	*WG-17303-120506-JJ-005*	*WG-17303-030707-DR-003*
Sample Date:		*11/26/2002*	*12/01/2003*	*03/09/2006*	*03/09/2006*	*06/30/2006*	*06/30/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*
Sample Type:					*Duplicate*		*Duplicate*			
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,1-Dichloroethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,1-Dichloroethene	mg/L	0.015 eh	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,2,3-Trichloropropane	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.001 U	2.5 U	0.25 U	0.25 U	0.17 U	0.21 U	0.091 U	0.42 U	0.25 U
1,2,4-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,2-Dichlorobenzene	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,2-Dichloroethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
1,3,5-Trimethylbenzene	mg/L	0.001 U	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.5 U	0.028 J eh	0.03 J deh	0.027 J eh	0.025 J eh	0.021 eh	0.025 J eh	0.013 J h
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	12 U	1.2 U	1.2 U	0.83 U	1 U	0.45 U	2.1 U	1.2 U
2-Hexanone	mg/L	0.05 U	25 U	2.5 U	2.5 U	1.7 U	2.1 U	0.91 U	4.2 U	2.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	25 U	2.5 UJ	2.5 UJ	1.7 UJ	2.1 U	0.91 U	4.2 U	2.5 U
Acetone	mg/L	0.025 U	12 U	1.2 U	1.2 U	0.83 U	1 U	0.45 U	2.1 U	1.2 U
Benzene	mg/L	0.059 eh	0.5 U	0.028 J eh	0.028 J eh	0.025 J eh	0.025 J eh	0.016 J eh	0.083 U	0.05 U
Bromodichloromethane	mg/L	0.001 U	0.5 U	0.05 UJ	0.05 UJ	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Bromoform	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Carbon disulfide	mg/L	0.005 U	2.5 U	0.25 U	0.25 U	0.17 U	0.21 U	0.091 U	0.42 U	0.25 U
Carbon tetrachloride	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Chlorobenzene	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.014 J
Chlorobromomethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.5 U	0.017 J	0.017 J	0.033 U	0.042 U	0.023	0.025 J	0.018 J
Chloroform (Trichloromethane)	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
cis-1,2-Dichloroethene	mg/L	9.8 deh	15 dehj	0.43 J eh	0.44 J eh	0.78 deh	0.75 deh	0.16 eh	1.8 deh	1 deh
cis-1,3-Dichloropropene	mg/L	0.001 U	0.5 U	0.05 UJ	0.05 UJ	0.033 UJ	0.042 UJ	0.018 U	0.083 U	0.05 U
Cyclohexane	mg/L	-	0.5 U	0.0077 J	0.0064 J	0.0076 J	0.0071 J	0.0057 J	0.083 U	0.0085 J
Dibromochloromethane	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Dibromomethane	mg/L	0.001 U	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 UJ	0.042 UJ	0.018 U	0.083 U	0.05 U
Ethyl ether	mg/L	0.02 U	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001	0.5 U	0.09 deh	0.094 deh	0.088 deh	0.085 deh	0.045 d	0.091 deh	0.043 J d
Iodomethane	mg/L	0.01 U	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	2.5 U	0.25 U	0.25 U	0.17 U	0.21 U	0.091 U	0.42 U	0.25 U
Methyl acetate	mg/L	-	5 U	0.5 U	0.5 U	0.33 U	0.42 U	0.18 U	0.83 U	0.5 U
Methyl cyclohexane	mg/L	-	0.5 U	0.05 U	0.05 U	0.033 UJ	0.042 U	0.013 J	0.083 U	0.05 U
Methyl tert butyl ether (MTBE)	mg/L	-	2.5 U	0.25 U	0.25 U	0.17 U	0.21 UJ	0.091 U	0.42 U	0.25 U

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW-3*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*
Sample ID:		*GW-17303-112602-MM-152*	*GW-17303-120103-DCR-252*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-063006-EV-016*	*WG-17303-063006-EV-017*	*WG-17303-100306-EV-040*	*WG-17303-120506-JJ-005*	*WG-17303-030707-DR-003*
Sample Date:		*11/26/2002*	*12/01/2003*	*03/09/2006*	*03/09/2006*	*06/30/2006*	*06/30/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*
Sample Type:					*Duplicate*		*Duplicate*			
Parameter:	*Units*									
Methylene chloride	mg/L	0.005 U	2.5 U	0.25 U	0.25 U	0.17 U	0.21 U	0.091 U	0.42 U	0.25 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.005 U	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	0.005 U	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.5 U	0.05 UJ	0.05 UJ	0.033 UJ	0.042 UJ	0.018 U	0.083 U	0.05 U
Tetrachloroethene	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Toluene	mg/L	0.048	0.5 U	0.025 J	0.027 J	0.024 J	0.023 J	0.014 J	0.038 J	0.012 J
trans-1,2-Dichloroethene	mg/L	0.42 J[eh]	0.24 J[eh]	0.022 J	0.021 J	0.018 J	0.019 J	0.01 J	0.034 J	0.019 J
trans-1,3-Dichloropropene	mg/L	0.001 U	0.5 U	0.05 U	0.05 U	0.033 UJ	0.042 UJ	0.018 UJ	0.083 U	0.05 U
trans-1,4-Dichloro-2-butene	mg/L	0.05 U	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.001	0.5 U	0.05 U	0.05 U	0.011 J[eh]	0.042 U	0.018 U	0.083 U	0.05 U
Trichlorofluoromethane (CFC-11)	mg/L	-	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	-	0.5 U	0.05 U	0.05 U	0.033 U	0.042 U	0.018 U	0.083 U	0.05 U
Vinyl chloride	mg/L	19[cdefhij]	8.3[cdehi]	1.2[cdehi]	1.2[cdehi]	1.3[cdehi]	1.4[cdehi]	0.63[deh]	2.5[cdehi]	1.2[cdehi]
Xylenes (total)	mg/L	0.006	1 U	0.1 UJ	0.1 UJ	0.015 J	0.083 U	0.0088 J	0.057 J[d]	0.1 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-13*	*MW19-14*	*MW19-15*
Sample ID:		*WG-17303-060607-DR-021*	*WG-17303-090607-EV-025*	*GW-17303-120607-DR-029*	*WG-17303-032708-CB-032*	*WG-17303-061908-DR-023*	*WG-17303-092408-DR-044*	*GW-17303-120303-DCR-275*	*GW-17303-120203-DCR-259*	*GW-17303-120203-DCR-264*
Sample Date:		*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*	*12/03/2003*	*12/02/2003*	*12/02/2003*
Sample Type:										
Parameter:	*Units*									
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,1,2,2-Tetrachloroethane	mg/L	0.029 UJ	0.067 U	0.091 U	0.056 U	0.062 U	0.1 UJ	0.004 U	0.42 U	0.2 U
1,1,2-Trichloroethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,1-Dichloroethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,1-Dichloroethene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U	0.02 U	2.1 U	1 U
1,2,4-Trimethylbenzene	mg/L	0.0051 J	0.014 J	0.014 J	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,2-Dichlorobenzene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,2-Dichloroethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
1,3,5-Trimethylbenzene	mg/L	0.029 U	0.067 U	0.091 U	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.015 J[h]	0.021 J[eh]	0.02 J[eh]	0.014 J[h]	0.012 J[h]	0.1 U	0.004 U	0.42 U	0.2 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.71 U	1.7 U	2.3 U	1.4 U	1.6 U	2.5 U	0.1 U	10 U	5 U
2-Hexanone	mg/L	1.4 U	3.3 U	4.5 U	2.8 U	3.1 U	5 U	0.2 U	21 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	1.4 UJ	3.3 U	4.5 U	2.8 U	3.1 U	5 U	0.2 U	21 U	10 U
Acetone	mg/L	0.71 U	1.7 U	2.3 U	1.4 U	1.6 U	2.5 U	0.1 U	10 U	5 U
Benzene	mg/L	0.024 J[eh]	0.033 J[eh]	0.041 J[eh]	0.03 J[eh]	0.041 J[eh]	0.03 J[eh]	0.009[eh]	0.42 U	0.2 U
Bromodichloromethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Bromoform	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 UJ	0.004 U	0.42 U	0.2 U
Bromomethane (Methyl bromide)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Carbon disulfide	mg/L	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U	0.02 U	2.1 U	1 U
Carbon tetrachloride	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Chlorobenzene	mg/L	0.019 J	0.047 J[d]	0.075 J[d]	0.076[d]	0.075[d]	0.092 J[d]	0.004 U	0.42 U	0.2 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.0096 J	0.067 U	0.091 U	0.056 UJ	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Chloroform (Trichloromethane)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Chloromethane (Methyl chloride)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
cis-1,2-Dichloroethene	mg/L	0.28[eh]	1.3[deh]	1.3[deh]	1.3[deh]	1[deh]	2[deh]	0.031	1.2[deh]	1.6[deh]
cis-1,3-Dichloropropene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 UJ	0.004 U	0.42 U	0.2 U
Cyclohexane	mg/L	0.0042 J	0.067 U	0.091 U	0.0068 J	0.062 U	0.1 U	0.0058	0.42 U	0.2 U
Dibromochloromethane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.087[deh]	0.14[deh]	0.18[deh]	0.13[deh]	0.12 J[deh]	0.13[deh]	0.004 U	0.42 U	0.2 U
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U	0.02 U	2.1 U	1 U
Methyl acetate	mg/L	0.29 U	0.67 U	0.91 U	0.56 U	0.62 U	1 U	0.04 U	4.2 U	2 U
Methyl cyclohexane	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.0014 J	0.42 U	0.2 U
Methyl tert butyl ether (MTBE)	mg/L	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U	0.02 U	2.1 U	1 U

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YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-13*	*MW19-14*	*MW19-15*
Sample ID:		*WG-17303-060607-DR-021*	*WG-17303-090607-EV-025*	*GW-17303-120607-DR-029*	*WG-17303-032708-CB-032*	*WG-17303-061908-DR-023*	*WG-17303-092408-DR-044*	*GW-17303-120303-DCR-275*	*GW-17303-120203-DCR-259*	*GW-17303-120203-DCR-264*
Sample Date:		*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*	*12/03/2003*	*12/02/2003*	*12/02/2003*
Sample Type:										
Parameter:	*Units*									
Methylene chloride	mg/L	0.14 U	0.33 U	0.45 U	0.28 U	0.31 U	0.5 U	0.02 U	2.1 U	1 U
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Tetrachloroethene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Toluene	mg/L	0.029	0.039 J	0.061 J	0.036 J	0.062 U	0.037 J	0.004 U	0.42 U	0.2 U
trans-1,2-Dichloroethene	mg/L	0.01 J	0.027 J	0.029 J	0.025 J	0.02 J	0.036 J	0.004 U	0.42 U	0.2 U
trans-1,3-Dichloropropene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 UJ	0.004 U	0.42 U	0.2 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Trichlorofluoromethane (CFC-11)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.029 U	0.067 U	0.091 U	0.056 U	0.062 U	0.1 U	0.004 U	0.42 U	0.2 U
Vinyl chloride	mg/L	**0.83**[deh]	**1.9**[cdehi]	**2.3**[cdehi]	**2**[cdehi]	**1.8**[cdehi]	**3.4**[cdehi]	**0.12**[deh]	**14**[cdefhi]	**5.8**[cdehi]
Xylenes (total)	mg/L	0.017 J	0.13 U	0.18 U	0.023 J	0.023 J	0.2 U	0.008 U	0.83 U	0.4 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6A.3

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Tyler Pond*	*Tyler Pond*
Sample Location:		***MW19-16***	***PW5-99***	***PW6-99***	***TW-2***	***TW-3***	***PW1-99***	***TP Dam Spillway***
Sample ID:		***GW-17303-120203-DCR-263***	***W-1190511-120699-SN-025***	***W-1190511-120699-SN-026***	***TW-2***	***TW-3***	***W-1190511-120699-SN-030***	***WG-17303-011510-LS-001***
Sample Date:		***12/02/2003***	***12/06/1999***	***12/06/1999***	***09/12/1996***	***09/12/1996***	***12/06/1999***	***01/15/2010***
Sample Type:								
Parameter:	***Units***							
VOCs								
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 UJ
1,1,2-Trichloroethane	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,1-Dichloroethene	mg/L	0.5 U	0.001 U	0.001 U	0.009[eh]	0.016[eh]	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	2.5 U	-	-	-	-	-	0.005 U
1,2,4-Trimethylbenzene	mg/L	-	0.001 U	0.001 U	-	-	0.001 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,2-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	0.5 U	-	-	-	-	-	0.001 U
1,3,5-Trimethylbenzene	mg/L	-	0.001 U	0.001 U	-	-	0.001 U	-
1,3-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	12 U	0.108	0.05 U	-	-	0.0945	0.025 U
2-Hexanone	mg/L	25 U	-	-	-	-	-	0.05 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	25 U	-	-	-	-	-	0.05 U
Acetone	mg/L	12 U	-	-	-	-	-	0.025 U
Benzene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
Bromoform	mg/L	0.5 U	-	-	-	-	-	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.5 U	-	-	-	-	-	0.001 U
Carbon disulfide	mg/L	2.5 U	-	-	-	-	-	0.005 U
Carbon tetrachloride	mg/L	0.5 U	-	-	-	-	-	0.001 U
Chlorobenzene	mg/L	0.5 U	-	-	-	-	-	0.001 U
Chlorobromomethane	mg/L	-	-	-	-	-	-	-
Chloroethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
Chloroform (Trichloromethane)	mg/L	0.5 U	-	-	-	-	-	0.00022 J
Chloromethane (Methyl chloride)	mg/L	0.5 U	-	-	-	-	-	0.001 U
cis-1,2-Dichloroethene	mg/L	4.9[deh]	0.001 U	0.001 U	1.069[deh]	1.68[deh]	0.001 U	0.0029 J
cis-1,3-Dichloropropene	mg/L	0.5 U	-	-	-	-	-	0.001 U
Cyclohexane	mg/L	0.5 U	-	-	-	-	-	0.001 U
Dibromochloromethane	mg/L	0.5 U	-	-	-	-	-	0.001 U
Dibromomethane	mg/L	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.5 U	-	-	-	-	-	0.001 UJ
Ethyl ether	mg/L	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	2.5 U	-	-	-	-	-	0.005 U
Methyl acetate	mg/L	5 U	-	-	-	-	-	0.01 U
Methyl cyclohexane	mg/L	0.5 U	-	-	-	-	-	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	2.5 U	-	-	-	-	-	0.005 U

APPENDIX F.6A.3

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Tyler Pond*	*Tyler Pond*
Sample Location:		***MW19-16***	***PW5-99***	***PW6-99***	***TW-2***	***TW-3***	***PW1-99***	***TP Dam Spillway***
Sample ID:		***GW-17303-120203-DCR-263***	***W-1190511-120699-SN-025***	***W-1190511-120699-SN-026***	***TW-2***	***TW-3***	***W-1190511-120699-SN-030***	***WG-17303-011510-LS-001***
Sample Date:		***12/02/2003***	***12/06/1999***	***12/06/1999***	***09/12/1996***	***09/12/1996***	***12/06/1999***	***01/15/2010***
Sample Type:								
Parameter:	***Units***							
Methylene chloride	mg/L	2.5 U	-	-	-	-	-	0.005 U
m-Xylene	mg/L	-	-	-	-	-	-	-
Naphthalene	mg/L	-	0.005 U	0.005 U	-	-	0.005 U	-
N-Propylbenzene	mg/L	-	0.001 U	0.001 U	-	-	0.001 U	-
o-Xylene	mg/L	-	-	-	-	-	-	-
Styrene	mg/L	0.5 U	-	-	-	-	-	0.001 U
Tetrachloroethene	mg/L	0.5 U	-	-	-	-	-	0.001 U
Toluene	mg/L	0.5 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	**0.19 J[eh]**	0.001 U	0.001 U	0.033	**0.307[eh]**	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.5 U	-	-	-	-	-	0.001 U
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.5 U	0.001 U	0.001 U	0.001	**0.021[eh]**	0.001 U	0.00084 J
Trichlorofluoromethane (CFC-11)	mg/L	0.5 U	-	-	-	-	-	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.5 U	-	-	-	-	-	0.001 U
Vinyl chloride	mg/L	**12[cdehi]**	0.001 U	0.001 U	**1.45[cdehi]**	**1.29[cdehi]**	0.001 U	0.00034 J
Xylenes (total)	mg/L	1 U	0.003 U	0.003 U	-	-	0.003 U	0.002 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6A.4

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location: *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*
VOCs											
1,1,1,2-Tetrachloroethane	mg/L	ID	ID	30	ID	0.32	96	1100	0.077	15	ID
1,1,1-Trichloroethane	mg/L	1300	ID	1300	0.089	0.2	1300	1330	0.2	660	1.6
1,1,2,2-Tetrachloroethane	mg/L	ID	ID	4.7	0.078	0.035	77	2970	0.0085	12	1.8
1,1,2-Trichloroethane	mg/L	ID	-	21	0.33	0.005	110	4420	0.005	17	6.4
1,1-Dichloroethane	mg/L	ID	380	2400	0.74	2.5	2300	5060	0.88	1000	13
1,1-Dichloroethene	mg/L	140	97	11	0.13	0.007	1.3	2250	0.007	0.2	2.3
1,2,3-Trichloropropane	mg/L	ID	-	84	-	0.12	180	1900	0.042	83	-
1,2,4-Trichlorobenzene	mg/L	300	-	19	0.099	0.07	300	300	0.07	300	0.2
1,2,4-Trimethylbenzene	mg/L	ID	56	56	0.017	0.063	56	55.89	0.063	56	0.31
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ID	-	0.39	-	0.0002	1.2	1.23	0.0002	1.2	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ID	ID	0.025	0.0057	0.00005	15	4200	0.00005	2.4	0.28
1,2-Dichlorobenzene	mg/L	160	-	160	0.013	0.6	160	156	0.6	160	0.24
1,2-Dichloroethane	mg/L	ID	2500	19	0.36	0.005	59	8520	0.005	9.6	16
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	19
1,2-Dichloropropane	mg/L	2800	550	16	0.23	0.005	36	2800	0.005	16	4
1,3,5-Trimethylbenzene	mg/L	ID	ID	61	0.045	0.072	61	61.15	0.072	61	0.81
1,3-Dichlorobenzene	mg/L	ID	ID	2	0.028	0.019	41	111	0.0066	18	0.2
1,3-Dichloropropene	mg/L	ID	130	5.5	0.009	0.035	26	2800	0.0085	3.9	0.16
1,4-Dichlorobenzene	mg/L	ID	-	6.4	0.017	0.075	74	73.8	0.075	16	0.21
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	240000	ID	240000	2.2	38	240000	240000	13	240000	40
2-Hexanone	mg/L	ID	-	5200	ID	2.9	8700	16000	1	4200	ID
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	20000	ID	13000	ID	5.2	20000	20000	1.8	20000	ID
Acetone	mg/L		15000	31000	1.7	2.1		1000000	0.73		30
Benzene	mg/L	67	68	11	0.2	0.005	35	1750	0.005	5.6	1.9
Bromodichloromethane	mg/L	ID	ID	14	ID	0.08	37	6740	0.08	4.8	ID
Bromoform	mg/L	ID	ID	140	ID	0.08	3100	3100	0.08	470	ID
Bromomethane (Methyl bromide)	mg/L	ID	ID	70	0.035	0.029	9	14500	0.01	4	0.64
Carbon disulfide	mg/L	ID	13	1200	ID	2.3	550	1190	0.8	250	ID
Carbon tetrachloride	mg/L	96	ID	4.6	0.045	0.005	2.4	793	0.005	0.37	1.4
Chlorobenzene	mg/L	ID	160	86	0.025	0.1	470	472	0.1	210	0.45
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-	ID
Chloroethane	mg/L	ID	110	440	1.1	1.7	5700	5740	0.43	5700	20
Chloroform (Trichloromethane)	mg/L	ID	ID	150	0.35	0.08	180	7920	0.08	28	11
Chloromethane (Methyl chloride)	mg/L	210	36	490	ID	1.1	45	6340	0.26	8.6	ID
cis-1,2-Dichloroethene	mg/L	ID	530	200	0.62	0.07	210	3500	0.07	93	11
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16
Cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	ID
Dibromochloromethane	mg/L	ID	ID	18	ID	0.08	110	2600	0.08	14	ID
Dibromomethane	mg/L	ID	ID	530	-	0.23	ID	11000	0.08	ID	-
Dichlorodifluoromethane (CFC-12)	mg/L	ID	ID	300	ID	4.8	300	300	1.7	220	ID
Ethyl ether	mg/L	61000	650	35000	ID	0.01	61000	61000	0.01	61000	ID
Ethylbenzene	mg/L	170	43	170	0.018	0.074	170	169	0.074	110	0.32
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	ID	29	56	0.028	2.3	56	56	0.8	56	0.5

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location: *Sample ID:* *Sample Date:* *Sample Type:* ***Parameter:***	***Units***	*Acute Inhalation Screening Level* ***a***	*Flammability and Explosivity Screening Level* ***b***	*Groundwater Contact Criteria* ***c***	*Groundwater Surface Water Interface Criteria* ***d***	*Nonresidential Drinking Water Criteria* ***e***	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs* ***f***	*Water Solubility* ***g***	*Residential Drinking Water Criteria* ***h***	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs* ***i***	*Final Acute Value* ***j***
Methyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	ID	ID	610	7.1	0.04	47000	46800	0.04	47000	420
Methylene chloride	mg/L	ID	ID	220	1.5	0.005	1400	17000	0.005	220	17
m-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-
Naphthalene	mg/L	31	-	31	0.011	1.5	31	31	0.52	31	0.2
N-Propylbenzene	mg/L	ID	ID	15	ID	0.23	ID	-	0.08	ID	ID
o-Xylene	mg/L	190	70	190	-	0.28	190	186	0.28	190	-
Styrene	mg/L	310	140	9.7	0.08	0.1	310	310	0.1	170	2.9
Tetrachloroethene	mg/L	200	ID	12	0.06	0.005	170	200	0.005	25	2.9
Toluene	mg/L	ID	61	530	0.27	0.79	530	526	0.79	530	2.6
trans-1,2-Dichloroethene	mg/L	ID	230	220	1.5	0.1	200	6300	0.1	85	28
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	0.16
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	1100	ID	22	0.2	0.005	97	1100	0.005	15	3.5
Trichlorofluoromethane (CFC-11)	mg/L	1100	ID	1100	-	7.3	1100	1100	2.6	1100	-
Trifluorotrichloroethane (Freon 113)	mg/L	170	ID	170	0.032	170	170	170	170	170	0.57
Vinyl chloride	mg/L	ID	33	1	0.013	0.002	13	2760	0.002	1.1	17
Xylenes (total)	mg/L	190	70	190	0.041	0.28	190	186	0.28	190	0.73

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*TP Dam Spillway*	*OutFall #11*	*OutFall #11*	*TP-A30-DRM*	*MW6U-93*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*
Sample ID:		*WG-17303-011510-LS-002*	*GW-17303-120303-DCR-274*	*GW-17303-DCR-121003*	*W-17303-061405-BW-0778*	*MW 6U-93*	*BH-13-00*	*BH-13-00*	*BH-15-00*	*BH-16-00*
Sample Date:		*01/15/2010*	*12/03/2003*	*12/10/2003*	*06/14/2005*	*12/10/2003*	*W-1190514-042700-BW-031*	*W-1190514-042700-BW-032*	*W-1190514-050400-BW-034*	*W-1190514-042700-BW-033*
Sample Type:		*Duplicate*					*04/27/2000*	*04/27/2000*	*05/04/2000*	*04/27/2000*
Parameter:	*Units*							*Duplicate*		
VOCs										
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.001 UJ	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,1,2-Trichloroethane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,1-Dichloroethane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,1-Dichloroethene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.005 U	0.1 U	0.005 U	83 UJ	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.001 U	0.02 U	0.001 U	17 U	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,2-Dichloroethane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	0.001 U	-	-	-	-
1,2-Dichloropropane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,3,5-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.025 U	0.5 U	0.025 U	**63 J[dehj]**	0.05 U	-	-	-	-
2-Hexanone	mg/L	0.05 U	1 U	0.05 U	830 U	0.05 U	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.05 U	1 U	0.05 U	830 U	0.05 U	-	-	-	-
Acetone	mg/L	0.025 U	0.5 U	0.025 U	**970[dehj]**	0.1 U	-	-	-	-
Benzene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
Bromodichloromethane	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Bromoform	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Bromomethane (Methyl bromide)	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
Carbon disulfide	mg/L	0.005 U	0.1 U	0.005 U	83 U	0.005 U	-	-	-	-
Carbon tetrachloride	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
Chlorobenzene	mg/L	0.001 U	0.0049 J	0.001 U	17 U	0.001 U	-	-	-	-
Chlorobromomethane	mg/L	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.008	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.00021 J	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.0032 J	**0.5[eh]**	0.0037	**24 J[dehj]**	-	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Cyclohexane	mg/L	0.001 U	0.02 U	0.001 U	17 U	-	-	-	-	-
Dibromochloromethane	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Dibromomethane	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	0.001 UJ	0.02 U	0.001 U	17 UJ	-	-	-	-	-
Ethyl ether	mg/L	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.02 U	0.001 U	17 U	0.001 U	-	-	-	-
Iodomethane	mg/L	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/L	0.005 U	0.1 U	0.005 U	83 U	-	-	-	-	-

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*TP Dam Spillway*	*OutFall #11*	*OutFall #11*	*TP-A30-DRM*	*MW6U-93*	*Off-Site BH-13-00*	*Off-Site BH-13-00*	*Off-Site BH-15-00*	*Off-Site BH-16-00*
Sample ID:		*WG-17303-011510-LS-002*	*GW-17303-120303-DCR-274*	*GW-17303-DCR-121003*	*W-17303-061405-BW-0778*	*MW 6U-93*	*W-1190514-042700-BW-031*	*W-1190514-042700-BW-032*	*W-1190514-050400-BW-034*	*W-1190514-042700-BW-033*
Sample Date:		*01/15/2010*	*12/03/2003*	*12/10/2003*	*06/14/2005*	*12/10/2003*	*04/27/2000*	*04/27/2000*	*05/04/2000*	*04/27/2000*
Sample Type:		*Duplicate*						*Duplicate*		
Parameter:	*Units*									
Methyl acetate	mg/L	0.01 U	0.2 U	0.01 U	170 U	-	-	-	-	-
Methyl cyclohexane	mg/L	0.001 U	0.02 U	0.001 U	17 U	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	0.1 U	0.005 U	83 U	-	-	-	-	-
Methylene chloride	mg/L	0.005 U	0.1 U	0.005 U	83 U	0.005 U	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/L	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Tetrachloroethene	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
Toluene	mg/L	0.001 U	0.02 U	0.00073 J	17 dehj	0.001 U	-	-	-	-
trans-1,2-Dichloroethene	mg/L	0.001 U	0.011 J	0.001 U	17 U	-	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	0.02 U	0.001 U	17 UJ	0.001 U	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.00091 J	0.04 eh	0.00044 J	230 cdefhij	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.001 U	0.02 U	0.001 U	17 U	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	0.001 U	0.02 U	0.001 U	17 U	-	-	-	-	-
Vinyl chloride	mg/L	0.00038 J	0.39 deh	0.0035 eh	5.7 J cdehi	0.001 U	0.001 U	0.001 U	0.02 deh	0.001 U
Xylenes (total)	mg/L	0.002 U	0.04 U	0.002 U	10 J dehj	0.003 U	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6A.4

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		***PAOC 19***	***PAOC 19***	***PAOC 19***	***PAOC 19***
		BH3-99	***BH4-99***	***BH4-99***	***BH5-99***
Sample ID:		***W-1190511-111999-SN-021***	***W-1190511-111999-SN-022***	***W-1190511-111999-SN-023***	***W-1190511-111999-SN-024***
Sample Date:		***11/19/1999***	***11/19/1999***	***11/19/1999***	***11/19/1999***
Sample Type:				***Duplicate***	
Parameter:	***Units***				
VOCs					
1,1,1,2-Tetrachloroethane	mg/L	-	-	-	-
1,1,1-Trichloroethane	mg/L	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	-	-	-	-
1,1-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/L	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	-
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone	mg/L	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	-	-	-	-
Acetone	mg/L	-	-	-	-
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	-	-	-	-
Bromoform	mg/L	-	-	-	-
Bromomethane (Methyl bromide)	mg/L	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-
Chlorobromomethane	mg/L	-	-	-	-
Chloroethane	mg/L	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L	-	-	-	-
Cyclohexane	mg/L	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-
Dibromomethane	mg/L	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	-	-
Ethyl ether	mg/L	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	mg/L	-	-	-	-
Isopropyl benzene	mg/L	-	-	-	-

APPENDIX F.6A.4

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - VOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

		PAOC 19	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***BH3-99***	***BH4-99***	***BH4-99***	***BH5-99***
Sample ID:		***W-1190511-111999-SN-021***	***W-1190511-111999-SN-022***	***W-1190511-111999-SN-023***	***W-1190511-111999-SN-024***
Sample Date:		***11/19/1999***	***11/19/1999***	***11/19/1999***	***11/19/1999***
Sample Type:				***Duplicate***	
Parameter:	***Units***				
Methyl acetate	mg/L	-	-	-	-
Methyl cyclohexane	mg/L	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	-	-	-	-
Methylene chloride	mg/L	-	-	-	-
m-Xylene	mg/L	-	-	-	-
Naphthalene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
N-Propylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	mg/L	-	-	-	-
Styrene	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Toluene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/L	-	-	-	-
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	-	-	-	-
Trifluorotrichloroethane (Freon 113)	mg/L	-	-	-	-
Vinyl chloride	mg/L	**1.14**[cdehi]	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.003 U	0.003 U	0.003 U	0.003 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Level*	*Groundwater Contact Criteria*	*Groundwater Surface water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*	*PAOC 18* *BH9-99* *W-1190511-111999-SN-020* *11/19/1999*	*PAOC 18* *GS-6* *WG-17303-030906-LA-0953* *03/09/2006*	*PAOC 18* *GS-8* *WG-17303-030806-NR-0955* *03/08/2006*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*			
SVOCs														
1,4-Dioxane	mg/L	ID	140000	1700	2.8	0.35	NLV	900000	0.085	NLV	390	-	-	-
1-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	ID	-	0.02 U	0.005 U
2,4,5-Trichlorophenol	mg/L	ID	ID	170	-	2.1	NLV	1200	0.73	NLV	-	-	0.02 U	0.005 U
2,4,6-Trichlorophenol	mg/L	ID	ID	10	0.005	0.47	NLV	800	0.12	NLV	0.079	-	0.016 U	0.004 U
2,4-Dichlorophenol	mg/L	ID	ID	48	0.011	0.21	NLV	4500	0.073	NLV	0.18	-	0.04 U	0.01 U
2,4-Dimethylphenol	mg/L	ID	ID	520	0.38	1	NLV	7870	0.37	NLV	2.7	-	0.0032 J	0.005 U
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	0.27	-	0.08 U	0.02 U
2,4-Dinitrotoluene	mg/L	ID	ID	8.6	-	0.032	NLV	270	0.0077	NLV	-	-	0.02 U	0.005 U
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.02 U	0.005 U
2-Chloronaphthalene	mg/L	ID	ID	6.7	-	5.2	ID	6.74	1.8	ID	-	-	0.02 U	0.005 U
2-Chlorophenol	mg/L	ID	ID	94	0.018	0.13	ID	22000	0.045	ID	0.32	-	0.02 U	0.005 U
2-Methylnaphthalene	mg/L	ID	ID	25	0.019	0.75	25	24.6	0.26	25	ID	-	0.02 U	0.005 U
2-Methylphenol	mg/L	ID	-	810	0.03	1	NLV	28000	0.37	NLV	1.5	-	0.02 U	0.005 U
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.08 U	0.02 U
2-Nitrophenol	mg/L	ID	ID	79	ID	0.058	NLV	2500	0.02	NLV	ID	-	0.02 U	0.005 U
3,3'-Dichlorobenzidine	mg/L	ID	ID	0.18	0.0003	0.0043	NLV	3.11	0.0011	NLV	0.081	-	0.016 U	0.004 U
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.08 U	0.02 U
4,6-Dinitro-2-methylphenol	mg/L	ID	ID	9.5	-	0.02	NLV	200	0.02	NLV	-	-	0.08 U	0.02 U
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.02 U	0.005 U
4-Chloro-3-methylphenol	mg/L	ID	ID	79	0.0074	0.42	NLV	3900	0.15	NLV	0.13	-	0.02 U	0.005 U
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	ID	-	0.04 U	0.01 U
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.02 U	0.005 U
4-Methylphenol	mg/L	ID	-	810	0.03	1	NLV	28000	0.37	NLV	0.45	-	0.02 U	0.005 U
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.08 U	0.02 U
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	1.9	-	0.08 U	0.02 U
Acenaphthene	mg/L	ID	ID	4.2	0.038	3.8	4.2	4.24	1.3	4.2	0.2	-	0.02 U	0.005 U
Acenaphthylene	mg/L	ID	ID	3.9	ID	0.15	3.9	3.93	0.052	3.9	ID	-	0.02 U	0.005 U
Acetophenone	mg/L	ID	ID	6100	-	4.4	6100	6100	1.5	6100	ID	-	0.02 U	0.005 U
Anthracene	mg/L	ID	ID	0.043	ID	0.043	0.043	0.0434	0.043	0.043	ID	-	0.02 U	0.005 U
Atrazine	mg/L	ID	ID	5.4	0.0073	0.003	NLV	70	0.003	NLV	0.1	-	0.012 U	0.003 U
Benzaldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.04 U	0.01 U
Benzo(a)anthracene	mg/L	ID	ID	0.0094	ID	0.0085	NLV	0.0094	0.0021	NLV	ID	0.00098 J	0.004 U	0.001 U
Benzo(a)pyrene	mg/L	ID	ID	0.001	ID	0.005	NLV	0.00162	0.005	NLV	ID	**0.0015 J[c]**	0.004 U	0.001 U
Benzo(b)fluoranthene	mg/L	ID	ID	0.0015	ID	0.0015	ID	0.0015	0.0015	ID	ID	**0.0017 J[cegh]**	0.004 U	0.001 U
Benzo(g,h,i)perylene	mg/L	ID	ID	0.001	-	0.001	NLV	0.00026	0.001	NLV	-	**0.0015 J[cegh]**	0.004 U	0.001 U
Benzo(k)fluoranthene	mg/L	ID	ID	0.001	-	0.001	NLV	0.0008	0.001	NLV	-	**0.0015 J[cegh]**	0.004 U	0.001 U
Biphenyl (1,1-Biphenyl)	mg/L	-	-	-	-	-	-	-	-	-	0.11	-	0.04 U	0.01 U
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.02 U	0.005 U
bis(2-Chloroethyl)ether	mg/L	17000	17000	5.7	0.001	0.0083	210	17200	0.002	38	ID	-	0.004 U	0.001 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.34	-	0.32	0.025	0.006	NLV	0.34	0.006	NLV	0.285	0.0033 U	0.02 U	0.005 U
Butyl benzylphthalate (BBP)	mg/L	ID	ID	2.7	0.067	2.7	NLV	2.69	1.2	NLV	0.63	-	0.02 U	0.005 U
Caprolactam	mg/L		-	390000	-	17	NLV	5250000	5.8	NLV	-	-	0.04 U	0.01 U
Carbazole	mg/L	ID	ID	7.4	0.01	0.35	NLV	7.48	0.085	NLV	0.072	-	0.04 U	0.01 U
Chrysene	mg/L	ID	ID	0.0016	ID	0.0016	ID	0.0016	0.0016	ID	ID	**0.002 J[cegh]**	0.004 U	0.001 U
Dibenz(a,h)anthracene	mg/L	ID	ID	0.002	ID	0.002	NLV	0.00249	0.002	NLV	ID	-	0.008 U	0.002 U
Dibenzofuran	mg/L	ID	ID	ID	0.004	ID	10	10	ID	10	0.072	-	0.016 U	0.004 U
Diethyl phthalate	mg/L	ID	-	1100	0.11	16	NLV	1080	5.5	NLV	2	0.0018 J	0.02 U	0.005 U
Dimethyl phthalate	mg/L	ID	-	4200	-	210	NLV	4190	73	NLV	-	-	0.02 U	0.005 U
Di-n-butylphthalate (DBP)	mg/L	ID	-	11	0.0097	2.5	NLV	11.2	0.88	NLV	0.075	-	0.02 U	0.005 U
Di-n-octyl phthalate (DnOP)	mg/L	ID	ID	0.4	ID	0.38	NLV	3	0.13	NLV	ID	-	0.02 U	0.005 U
Fluoranthene	mg/L	ID	ID	0.21	0.0016	0.21	0.21	0.206	0.21	0.21	0.028	**0.0024 J[d]**	0.004 U	0.001 U
Fluorene	mg/L	ID	ID	2	0.012	2	2	1.98	0.88	2	0.22	-	0.02 U	0.005 U

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Acute Inhalation Screening Level*	*Flammability and Explosivity Level*	*Groundwater Contact Criteria*	*Groundwater Surface water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:												***BH9-99***	***GS-6***	***GS-8***
Sample ID:												***W-1190511-111999-SN-020***	***WG-17303-030906-LA-0953***	***WG-17303-030806-NR-0955***
Sample Date:												***11/19/1999***	***03/09/2006***	***03/08/2006***
Sample Type:														
Parameter:	***Units***	***a***	***b***	***c***	***d***	***e***	***f***	***g***	***h***	***i***	***j***			
Hexachlorobenzene	mg/L	ID	ID	0.0046	0.0002	0.001	3	6.2	0.001	0.44	ID	-	0.0008 U	0.0002 U
Hexachlorobutadiene	mg/L	ID	ID	0.4	0.000053	0.042	3.2	3.23	0.015	1.6	0.015	-	0.004 U	0.001 U
Hexachlorocyclopentadiene	mg/L	ID	ID	1.6	ID	0.05	0.42	1.8	0.05	0.13	ID	-	R	0.005 U
Hexachloroethane	mg/L	ID	ID	1.9	0.0067	0.021	50	50	0.0073	27	0.21	-	0.02 U	0.005 U
Indeno(1,2,3-cd)pyrene	mg/L	ID	ID	0.002	ID	0.002	NLV	0.000022	0.002	NLV	ID	**0.0011 J[$]**	0.008 U	0.002 U
Isophorone	mg/L	12000	-	990	1.3	3.1	NLV	12000	0.77	NLV	9.2	-	0.02 U	0.005 U
Naphthalene	mg/L	31	-	31	0.011	1.5	31	31	0.52	31	0.2	-	0.02 U	0.005 U
Nitrobenzene	mg/L	ID	-	11	0.18	0.0096	550	2090	0.0034	280	2.1	-	0.012 U	0.003 U
N-Nitrosodi-n-propylamine	mg/L	ID	ID	0.36	-	0.005	NLV	9890	0.005	NLV	-	-	0.02 U	0.005 U
N-Nitrosodiphenylamine	mg/L	ID	ID	35	-	1.1	NLV	35.1	0.27	NLV	-	-	0.02 U	0.005 U
Pentachlorophenol	mg/L	ID	ID	0.2	0.0028	0.001	NLV	1850	0.001	NLV	0.022	-	0.02 U	0.005 U
Phenanthrene	mg/L	ID	ID	1	0.002	0.15	1	1	0.052	1	0.0094	0.0013 J	0.008 U	0.002 U
Phenol	mg/L	ID	-	29000	0.45	13	NLV	82800	4.4	NLV	6.8	-	0.086	0.005 U
Pyrene	mg/L	ID	ID	0.14	ID	0.14	0.14	0.135	0.14	0.14	ID	0.0018 J	0.02 U	0.005 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*IW-42*	*IW-44*	*IW-46*	*MW-6*	*MW18-07*	*MW-18-45*	*BH7-99*	*BH8-99*	*GS-7*	*MW-4*	*MW-4*
Sample ID:		*GW-17303-012804-MM-282*	*WG-17303-030806-NR-0957*	*WG-17303-030806-NR-0956*	*WG-17303-030806-NR-0958*	*WG-17303-030806-LA-0960*	*WG-17303-030806-NR-0959*	*W-1190511-111899-SN-019*	*W-1190511-111899-SN-018*	*WG-17303-031006-NR-0954*	*WG-17303-030906-NR-0973*	*WG-17303-030807-JJ-009*
Sample Date:		*01/28/2004*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*11/18/1999*	*11/18/1999*	*03/10/2006*	*03/09/2006*	*03/08/2007*
Sample Type:												
Parameter:	*Units*											
SVOCs												
1,4-Dioxane	mg/L	-	-	-	-	-	-	-	-	-	-	0.001 U
1-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2,4,5-Trichlorophenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2,4,6-Trichlorophenol	mg/L	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	-
2,4-Dichlorophenol	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
2,4-Dimethylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2,4-Dinitrophenol	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
2,4-Dinitrotoluene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2,6-Dinitrotoluene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2-Chloronaphthalene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ	0.005 U	-
2-Chlorophenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2-Methylnaphthalene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2-Methylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
2-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
2-Nitrophenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
3,3'-Dichlorobenzidine	mg/L	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	-
3-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
4,6-Dinitro-2-methylphenol	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
4-Bromophenyl phenyl ether	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ	0.005 U	-
4-Chloro-3-methylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
4-Chloroaniline	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
4-Chlorophenyl phenyl ether	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ	0.005 U	-
4-Methylphenol	mg/L	0.012	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
4-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
4-Nitrophenol	mg/L	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	-
Acenaphthene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Acenaphthylene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ	0.005 U	-
Acetophenone	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Anthracene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Atrazine	mg/L	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	-	0.003 U	0.003 U	-
Benzaldehyde	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
Benzo(a)anthracene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Benzo(a)pyrene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Benzo(b)fluoranthene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Benzo(g,h,i)perylene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Benzo(k)fluoranthene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Biphenyl (1,1-Biphenyl)	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
bis(2-Chloroethoxy)methane	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
bis(2-Chloroethyl)ether	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0012 J	0.002 U	0.005 U	0.005 U	-
Butyl benzylphthalate (BBP)	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Caprolactam	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
Carbazole	mg/L	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	-
Chrysene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Dibenz(a,h)anthracene	mg/L	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	-	0.002 U	0.002 U	-
Dibenzofuran	mg/L	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 UJ	0.004 U	-
Diethyl phthalate	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0027	0.002 U	0.005 U	0.005 U	-
Dimethyl phthalate	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Di-n-butylphthalate (DBP)	mg/L	0.0004 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Di-n-octyl phthalate (DnOP)	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Fluoranthene	mg/L	0.005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0021 U	0.002 U	0.001 U	0.001 U	-
Fluorene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*IW-42*	*IW-44*	*IW-46*	*MW-6*	*MW18-07*	*MW-18-45*	*BH7-99*	*BH8-99*	*GS-7*	*MW-4*	*MW-4*
Sample ID:		*GW-17303-012804-MM-282*	*WG-17303-030806-NR-0957*	*WG-17303-030806-NR-0956*	*WG-17303-030806-NR-0958*	*WG-17303-030806-LA-0960*	*WG-17303-030806-NR-0959*	*W-1190511-111899-SN-019*	*W-1190511-111899-SN-018*	*WG-17303-031006-NR-0954*	*WG-17303-030906-NR-0973*	*WG-17303-030807-JJ-009*
Sample Date:		*01/28/2004*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*03/08/2006*	*11/18/1999*	*11/18/1999*	*03/10/2006*	*03/09/2006*	*03/08/2007*
Sample Type:												
Parameter:	***Units***											
Hexachlorobenzene	mg/L	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 UJ	0.0002 U	-
Hexachlorobutadiene	mg/L	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	-
Hexachlorocyclopentadiene	mg/L	-	0.005 U	0.005 U	R	0.005 U	0.005 U	-	-	R	R	-
Hexachloroethane	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Indeno(1,2,3-cd)pyrene	mg/L	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U	0.002 U	0.002 U	0.002 U	-
Isophorone	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Naphthalene	mg/L	0.005 U	0.005 U	0.00063 J	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Nitrobenzene	mg/L	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	-	0.003 U	0.003 U	-
N-Nitrosodi-n-propylamine	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
N-Nitrosodiphenylamine	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ	0.005 U	-
Pentachlorophenol	mg/L	-	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Phenanthrene	mg/L	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U	0.002 U	0.002 U	0.002 U	-
Phenol	mg/L	0.0013 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	-
Pyrene	mg/L	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0021 U	0.002 U	0.005 U	0.005 U	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW-12*	*MW-14*	*MW19-01*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-03*	*MW19-07*	*MW19-24*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-030807-NRS-012*	*WG-17303-030706-NR-0949*	*WG-17303-030706-LA-0945*	*WG-17303-030706-AB-0947*	*WG-17303-030907-NRS-021*	*WG-17303-030907-NRS-022*	*WG-17303-030706-NR-0946*	*WG-17303-030706-LA-0944*	*WG-17303-030706-AB-0948*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*
Sample Date:		*03/08/2007*	*03/07/2006*	*03/07/2006*	*03/07/2006*	*03/09/2007*	*03/09/2007*	*03/07/2006*	*03/07/2006*	*03/07/2006*	*03/09/2006*	*03/09/2006*
Sample Type:							*Duplicate*					*Duplicate*
Parameter:	*Units*											
SVOCs												
1,4-Dioxane	mg/L	0.001 U	-	-	-	0.001 U	0.001 U	-	-	-	-	-
1-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,4,5-Trichlorophenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,4,6-Trichlorophenol	mg/L	-	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
2,4-Dichlorophenol	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
2,4-Dimethylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,4-Dinitrophenol	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2,4-Dinitrotoluene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,6-Dinitrotoluene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Chloronaphthalene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Chlorophenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Methylnaphthalene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.00069 J	0.00066 J
2-Methylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2-Nitrophenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
3,3'-Dichlorobenzidine	mg/L	-	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
3-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4,6-Dinitro-2-methylphenol	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Bromophenyl phenyl ether	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Chloro-3-methylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Chloroaniline	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
4-Chlorophenyl phenyl ether	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Methylphenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Nitroaniline	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Nitrophenol	mg/L	-	0.02 U	0.02 U	0.02 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Acenaphthene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acenaphthylene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acetophenone	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Anthracene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Atrazine	mg/L	-	0.003 U	0.003 U	0.003 U	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Benzaldehyde	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)anthracene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(a)pyrene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(b)fluoranthene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(g,h,i)perylene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(k)fluoranthene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Biphenyl (1,1-Biphenyl)	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
bis(2-Chloroethoxy)methane	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
bis(2-Chloroethyl)ether	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.00092 J	0.0031 J
Butyl benzylphthalate (BBP)	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Caprolactam	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbazole	mg/L	-	0.01 U	0.01 U	0.01 U	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibenz(a,h)anthracene	mg/L	-	0.002 U	0.002 U	0.002 U	-	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibenzofuran	mg/L	-	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Diethyl phthalate	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dimethyl phthalate	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Di-n-butylphthalate (DBP)	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Di-n-octyl phthalate (DnOP)	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Fluoranthene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Fluorene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW-12*	*MW-14*	*MW19-01*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-03*	*MW19-07*	*MW19-24*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-030807-NRS-012*	*WG-17303-030706-NR-0949*	*WG-17303-030706-LA-0945*	*WG-17303-030706-AB-0947*	*WG-17303-030907-NRS-021*	*WG-17303-030907-NRS-022*	*WG-17303-030706-NR-0946*	*WG-17303-030706-LA-0944*	*WG-17303-030706-AB-0948*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*
Sample Date:		*03/08/2007*	*03/07/2006*	*03/07/2006*	*03/07/2006*	*03/09/2007*	*03/09/2007*	*03/07/2006*	*03/07/2006*	*03/07/2006*	*03/09/2006*	*03/09/2006*
Sample Type:							*Duplicate*					*Duplicate*
Parameter:	*Units*											
Hexachlorobenzene	mg/L	-	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Hexachlorobutadiene	mg/L	-	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Hexachlorocyclopentadiene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	R	R
Hexachloroethane	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Indeno(1,2,3-cd)pyrene	mg/L	-	0.002 U	0.002 U	0.002 U	-	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isophorone	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Naphthalene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.023[d]	0.022[d]
Nitrobenzene	mg/L	-	0.003 U	0.003 U	0.003 U	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
N-Nitrosodi-n-propylamine	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
N-Nitrosodiphenylamine	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Pentachlorophenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Phenanthrene	mg/L	-	0.002 U	0.002 U	0.002 U	-	-	0.002 U	0.002 U	0.002 U	0.0007 J	0.00083 J
Phenol	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Pyrene	mg/L	-	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*IW-12*	*IW-12*	*IW-20*	*IW-33*	*MW19-09*	*MW19-09*	*MW19-10*	*MW19-25*	*BH10-99*	*BH11-99*	*GS-3*
Sample ID:		*WG-17303-030906-EV-0961*	*WG-17303-030907-EV-024*	*WG-17303-061605-DR-0792*	*WG-17303-031006-EV-0962*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*	*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*	*W-1190511-111899-SN-017*	*W-1190511-111899-SN-016*	*WG-17303-031006-EV-0950*
Sample Date:		*03/09/2006*	*03/09/2007*	*06/16/2005*	*03/10/2006*	*06/16/2005*	*06/16/2005*	*06/16/2005*	*06/16/2005*	*11/18/1999*	*11/18/1999*	*03/10/2006*
Sample Type:							*Duplicate*					
Parameter:	*Units*											
SVOCs												
1,4-Dioxane	mg/L	-	0.001 U	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2,4,5-Trichlorophenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2,4,6-Trichlorophenol	mg/L	0.004 U	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 U
2,4-Dichlorophenol	mg/L	0.01 U	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	-	-	0.01 U
2,4-Dimethylphenol	mg/L	0.005 U	-	0.012	0.0021 J	0.005 U	0.005 U	0.0022 J	0.005 U	-	-	0.005 U
2,4-Dinitrophenol	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
2,4-Dinitrotoluene	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2,6-Dinitrotoluene	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2-Chloronaphthalene	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ
2-Chlorophenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2-Methylnaphthalene	mg/L	0.005 U	-	0.0038 J	0.005 UJ	0.005 U	0.005 U	0.0012 J	0.005 U	-	-	0.005 U
2-Methylphenol	mg/L	0.005 U	-	0.0034 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
2-Nitroaniline	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
2-Nitrophenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	-	-	0.005 U
3,3'-Dichlorobenzidine	mg/L	0.004 U	-	0.004 U	R	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 U
3-Nitroaniline	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
4,6-Dinitro-2-methylphenol	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
4-Bromophenyl phenyl ether	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ
4-Chloro-3-methylphenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
4-Chloroaniline	mg/L	0.01 U	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U
4-Chlorophenyl phenyl ether	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ
4-Methylphenol	mg/L	0.005 U	-	0.0048 J#	0.005 U	0.005 U	0.005 U	0.00077 J#	0.005 U	-	-	0.005 U
4-Nitroaniline	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
4-Nitrophenol	mg/L	0.02 U	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	-	-	0.02 U
Acenaphthene	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Acenaphthylene	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ
Acetophenone	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Anthracene	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Atrazine	mg/L	0.003 U	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	-	0.003 U
Benzaldehyde	mg/L	0.01 U	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U
Benzo(a)anthracene	mg/L	0.001 U	-	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Benzo(a)pyrene	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Benzo(b)fluoranthene	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Benzo(g,h,i)perylene	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Benzo(k)fluoranthene	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Biphenyl (1,1-Biphenyl)	mg/L	0.01 U	-	0.00074 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U
bis(2-Chloroethoxy)methane	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	-	-	0.005 U
bis(2-Chloroethyl)ether	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0021	0.002 U	0.005 U
Butyl benzylphthalate (BBP)	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.00074 J
Caprolactam	mg/L	0.01 U	-	0.009 J	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 UJ	-	-	0.01 U
Carbazole	mg/L	0.01 U	-	0.00046 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-	-	0.01 U
Chrysene	mg/L	0.001 U	-	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Dibenz(a,h)anthracene	mg/L	0.002 U	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	-	0.002 U
Dibenzofuran	mg/L	0.004 U	-	0.004 U	0.004 UJ	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 UJ
Diethyl phthalate	mg/L	0.005 U	-	0.00081 J	0.005 U	0.005 U	0.005 U	0.0012 J	0.005 U	0.0018 J	0.002 U	0.005 U
Dimethyl phthalate	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Di-n-butylphthalate (DBP)	mg/L	0.005 U	-	0.00065 J	0.005 U	0.005 U	0.005 U	**0.021[d]**	0.005 U	-	-	0.005 U
Di-n-octyl phthalate (DnOP)	mg/L	0.005 U	-	0.005 U	0.005 U	0.0011 J	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Fluoranthene	mg/L	0.001 U	-	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Fluorene	mg/L	0.005 U	-	0.00039 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*IW-12*	*IW-12*	*IW-20*	*IW-33*	*MW19-09*	*MW19-09*	*MW19-10*	*MW19-25*	*BH10-99*	*BH11-99*	*GS-3*
Sample ID:		*WG-17303-030906-EV-0961*	*WG-17303-030907-EV-024*	*WG-17303-061605-DR-0792*	*WG-17303-031006-EV-0962*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*	*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*	*W-1190511-111899-SN-017*	*W-1190511-111899-SN-016*	*WG-17303-031006-EV-0950*
Sample Date:		*03/09/2006*	*03/09/2007*	*06/16/2005*	*03/10/2006*	*06/16/2005*	*06/16/2005*	*06/16/2005*	*06/16/2005*	*11/18/1999*	*11/18/1999*	*03/10/2006*
Sample Type:							*Duplicate*					
Parameter:	*Units*											
Hexachlorobenzene	mg/L	0.0002 U	-	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 UJ
Hexachlorobutadiene	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	-	-	0.001 U
Hexachlorocyclopentadiene	mg/L	R	-	0.005 U	R	R	R	R	R	-	-	R
Hexachloroethane	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002 U	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isophorone	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Naphthalene	mg/L	0.005 U	-	0.019[d]	0.005 UJ	0.005 U	0.005 U	0.014[d]	0.005 UJ	-	-	0.005 U
Nitrobenzene	mg/L	0.003 U	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 UJ	-	-	0.003 U
N-Nitrosodi-n-propylamine	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
N-Nitrosodiphenylamine	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 UJ
Pentachlorophenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Phenanthrene	mg/L	0.002 U	-	0.00047 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Phenol	mg/L	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U
Pyrene	mg/L	0.005 U	-	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.005 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Unknown*
Sample Location:		*GS-4*	*MW-18-46*	*MW-18-46*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-14*	*MW19-14*	*MW19-15*	*TP-A30-DRM*	
Sample ID:		*WG-17303-031006-EV-0951*	*MW-18-46*	*MW-18-46*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-030707-DR-003*	*GW-17303-012904-MM-290*	*GW-17303-012904-MM-291*	*GW-17303-012804-MM-284*	*W-17303-061405-BW-0778*	
Sample Date:		*03/10/2006*	*12/19/1996*	*03/01/1997*	*03/09/2006*	*03/09/2006*	*03/07/2007*	*01/29/2004*	*01/29/2004*	*01/28/2004*	*06/14/2005*	
Sample Type:						*Duplicate*			*Duplicate*			
Parameter:	*Units*											
SVOCs												
1,4-Dioxane	mg/L	-	-	-	-	-	0.001 U	-	-	-	-	
1-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2,4,5-Trichlorophenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2,4,6-Trichlorophenol	mg/L	0.004 U	-	-	0.004 U	0.004 U	-	-	-	-	9.9 U	
2,4-Dichlorophenol	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	-	25 U	
2,4-Dimethylphenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2,4-Dinitrophenol	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
2,4-Dinitrotoluene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2,6-Dinitrotoluene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2-Chloronaphthalene	mg/L	0.005 UJ	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2-Chlorophenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2-Methylnaphthalene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2-Methylphenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
2-Nitroaniline	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
2-Nitrophenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
3,3'-Dichlorobenzidine	mg/L	0.004 U	-	-	0.004 U	0.004 U	-	-	-	-	9.9 U	
3-Nitroaniline	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
4,6-Dinitro-2-methylphenol	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
4-Bromophenyl phenyl ether	mg/L	0.005 UJ	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
4-Chloro-3-methylphenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
4-Chloroaniline	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	-	25 U	
4-Chlorophenyl phenyl ether	mg/L	0.005 UJ	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
4-Methylphenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
4-Nitroaniline	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
4-Nitrophenol	mg/L	0.02 U	-	-	0.02 U	0.02 U	-	-	-	-	50 U	
Acenaphthene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	0.005 U	12 U	
Acenaphthylene	mg/L	0.005 UJ	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Acetophenone	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Anthracene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Atrazine	mg/L	0.003 U	-	-	0.003 U	0.003 U	-	-	-	-	7.4 U	
Benzaldehyde	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	-	25 U	
Benzo(a)anthracene	mg/L	0.001 U	0.0043[h]	U	0.001 U	0.001 U	-	-	-	-	2.5 U	
Benzo(a)pyrene	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U	
Benzo(b)fluoranthene	mg/L	0.001 U	0.0062[cegh]	U	0.001 U	0.001 U	-	-	-	-	2.5 U	
Benzo(g,h,i)perylene	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U	
Benzo(k)fluoranthene	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U	
Biphenyl (1,1-Biphenyl)	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	-	25 U	
bis(2-Chloroethoxy)methane	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
bis(2-Chloroethyl)ether	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U	
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.005 U	-	-	0.005 U	0.002 J	-	-	-	-	12 U	
Butyl benzylphthalate (BBP)	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Caprolactam	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	-	25 U	
Carbazole	mg/L	0.01 U	-	-	0.01 U	0.01 U	-	-	-	0.01 U	25 U	
Chrysene	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U	
Dibenz(a,h)anthracene	mg/L	0.002 U	-	-	0.002 U	0.002 U	-	-	-	-	5 U	
Dibenzofuran	mg/L	0.004 UJ	-	-	0.004 U	0.004 U	-	-	-	0.005 U	9.9 U	
Diethyl phthalate	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Dimethyl phthalate	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Di-n-butylphthalate (DBP)	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Di-n-octyl phthalate (DnOP)	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	
Fluoranthene	mg/L	0.001 U	0.014[d]	U	0.001 U	0.001 U	-	0.005 U	0.005 U	0.005 U	2.5 U	
Fluorene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U	

APPENDIX F.6B

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - SVOCs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Unknown*
Sample Location:		*GS-4*	*MW-18-46*	*MW-18-46*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-14*	*MW19-14*	*MW19-15*	*TP-A30-DRM*
Sample ID:		*WG-17303-031006-EV-0951*	*MW-18-46*	*MW-18-46*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-030707-DR-003*	*GW-17303-012904-MM-290*	*GW-17303-012904-MM-291*	*GW-17303-012804-MM-284*	*W-17303-061405-BW-0778*
Sample Date:		*03/10/2006*	*12/19/1996*	*03/01/1997*	*03/09/2006*	*03/09/2006*	*03/07/2007*	*01/29/2004*	*01/29/2004*	*01/28/2004*	*06/14/2005*
Sample Type:						*Duplicate*			*Duplicate*		
Parameter:	*Units*										
Hexachlorobenzene	mg/L	0.0002 UJ	-	-	0.0002 U	0.0002 U	-	-	-	-	0.5 U
Hexachlorobutadiene	mg/L	0.001 U	-	-	0.001 U	0.001 U	-	-	-	-	2.5 U
Hexachlorocyclopentadiene	mg/L	R	-	-	R	R	-	-	-	-	12 U
Hexachloroethane	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002 U	-	-	0.002 U	0.002 U	-	-	-	-	5 U
Isophorone	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U
Naphthalene	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	0.005 U	0.005 U	0.0042 J	12 U
Nitrobenzene	mg/L	0.003 U	-	-	0.003 U	0.003 U	-	-	-	-	7.4 U
N-Nitrosodi-n-propylamine	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U
N-Nitrosodiphenylamine	mg/L	0.005 UJ	-	-	0.005 U	0.005 U	-	-	-	-	12 U
Pentachlorophenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	12 U
Phenanthrene	mg/L	0.002 U	0.015[dj]	U	0.002 U	0.00087 J	-	0.005 U	0.005 U	0.005 U	5 U
Phenol	mg/L	0.005 U	-	-	0.005 U	0.005 U	-	-	-	-	7.2 J[dhj]
Pyrene	mg/L	0.005 U	0.012	U	0.005 U	0.005 U	-	-	-	-	12 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level* *a*	*Flammability and Explosivity Screening Level* *b*	*Groundwater Contact Criteria* *c*	*Groundwater Surfacewater Interface Criteria* *d*	*Nonresidential Drinking Water Criteria* *e*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs* *f*	*Water Solubility* *g*	*Residential Drinking Water Criteria* *h*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs* *i*	*Final Acute Value* *j*	*PAOC 18* *GS-5* *WG-17303-062906-LA-010* *06/29/2006*	*PAOC 18* *GS-5* *WG-17303-100306-EV-047* *10/03/2006*
Inorganics													
Aluminum	mg/L	ID	ID	64000	-	0.05	NLV	-	0.05	NLV	-	-	-
Antimony	mg/L	ID	ID	68	0.13	0.006	NLV	-	0.006	NLV	2.3	0.00044 J	0.000098 J
Arsenic	mg/L	ID	ID	4.3	0.01	0.01	NLV	-	0.01	NLV	0.68	**0.0115**[deh]	**0.0133**[deh]
Barium	mg/L	ID	ID	14000	1.87	2	NLV	-	2	NLV	10.65	0.551	0.46
Beryllium	mg/L	ID	ID	290	0.0753	0.004	NLV	-	0.004	NLV	1.355	0.001 U	0.00037 J
Cadmium	mg/L	ID	ID	190	0.00612	0.005	NLV	-	0.005	NLV	0.037	0.0016	0.001 U
Chromium	mg/L	ID	ID	460	0.011	0.1	NLV	-	0.1	NLV	3.483	0.0028 J	0.0024 J
Chromium VI (hexavalent)	mg/L	ID	ID	460	0.011	0.1	NLV	-	0.1	NLV	32	-	-
Cobalt	mg/L	ID	ID	2400	0.1	0.1	NLV	-	0.04	NLV	0.74	0.007 U	0.007 U
Copper	mg/L	ID	ID	7400	0.0287	1	NLV	-	1	NLV	0.097	0.0047	0.0031 U
Cyanide (total)	mg/L	ID	ID	57	0.0052	0.2	NLV	-	0.2	NLV	-	-	-
Iron	mg/L	ID	ID	58000	-	0.3	NLV	-	0.3	NLV	-	-	-
Iron (dissolved)	mg/L	ID	ID	58000	-	0.3	NLV	-	0.3	NLV	-	-	-
Lead	mg/L	ID	ID	ID	0.0438	0.004	NLV	-	0.004	NLV	0.779	**0.0064**[eh]	0.0036
Lead (dissolved)	mg/L	ID	ID	ID	0.0438	0.004	NLV	-	0.004	NLV	0.779	-	-
Manganese	mg/L	ID	ID	9100	6.4	0.05	NLV	-	0.05	NLV	27.597	**0.621**[eh]	**0.413**[eh]
Manganese (dissolved)	mg/L	ID	ID	9100	6.4	0.05	NLV	-	0.05	NLV	27.597	-	-
Mercury	mg/L	ID	ID	0.056	0.0000013	0.002	0.056	0.056	0.002	0.056	2.8	0.0002 U	0.0002 U
Nickel	mg/L	ID	ID	74000	0.165	0.1	NLV	-	0.1	NLV	2.97	0.0054 J	0.0026 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	ID	ID	970	0.005	0.05	NLV	-	0.05	NLV	0.12	0.005 U	0.005 U
Silver	mg/L	ID	ID	1500	0.0002	0.098	NLV	-	0.034	NLV	0.0011	0.000097 J	0.0002 U
Thallium	mg/L	ID	ID	13	0.0037	0.002	NLV	-	0.002	NLV	0.094	0.001 U	0.000028 J
Vanadium	mg/L	ID	ID	970	0.012	0.062	NLV	-	0.0045	NLV	0.22	0.004 U	0.004 U
Zinc	mg/L	ID	ID	110000	0.375	5	NLV	-	2.4	NLV	0.744	0.0229	0.0097 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-120506-AF-002*	*WG-17303-060507-EV-004*	*WG-17303-090607-NRS-026*	*GW-17303-120607-DR-023*	*WG-17303-030906-LA-0953*	*WG-17303-062906-LA-006*	*WG-17303-100306-NRS-048*	*WG-17303-120506-AF-001*	*WG-17303-031207-EV-031*	*WG-17303-060507-EV-005*	*WG-17303-090507-DR-011*
Sample Date:		*12/05/2006*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/09/2006*	*06/29/2006*	*10/03/2006*	*12/05/2006*	*03/12/2007*	*06/05/2007*	*09/05/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00037 J	0.00026 J	0.00027 J	0.0003 J	0.0024	0.0028	0.0045	0.00071 J	0.00015 J	0.00017 J	0.002 U
Arsenic	mg/L	0.0239 deh	0.0153 deh	0.0224 deh	0.0181 deh	0.0087	0.0155 deh	0.0297 deh	0.005 U	0.005 U	0.0044 J	0.005 U
Barium	mg/L	0.416	0.836	0.978	0.908	0.174	0.119	0.555	0.057 J	0.0873 J	0.0954 J	0.0814 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0013	0.001 U	0.001 U	0.001 U	0.00032 J
Cadmium	mg/L	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.00064 J	0.0022	0.0206 deh	0.001 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.0028 J	0.005 U	0.005 U	0.005 U	0.005	0.0018 J	0.098 d	0.005 U	0.005 U	0.0026 J	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0014 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0138	0.0035 J	0.0016 J	0.007 U	0.007 U
Copper	mg/L	0.0024 U	0.0012 J	0.0024 U	0.0023 U	0.0051	0.0048	0.0369 d	0.0029 U	0.002 U	0.0023	0.0024 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	25 eh	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.0044 eh	0.003 U	0.003 U	0.003 U	0.0119 eh	0.0038	0.229 deh	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.589 eh	1.1 eh	0.61 eh	0.769 eh	0.228 eh	0.12 eh	0.568 eh	0.0855 eh	0.0669 eh	0.0652 eh	0.0577 eh
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.00012 J d	0.0002 U	0.0002 U	0.0002 U	0.00016 J d	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0062 J	0.02 U	0.02 U	0.02 U	0.0216	0.0266	0.0504	0.0444	0.0173 J	0.0093 J	0.0064 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.00063 J	0.002 U	0.002 U	0.005 U	0.005 U	0.0055 d	0.005 U	0.00063 J	0.00074 J	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00011 J	0.0002 U	0.0011 d	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.000027 J	0.001 U	0.001 U	0.001 U	0.00043 J	0.001 U	0.000031 J	0.000037 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.00069 J	0.0047 h	0.004 U	0.0526 dh	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0532 U	0.029	0.0206	0.0337	0.0294 U	0.0146 J	0.358	0.02 U	0.01 U	0.0055 J	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*WG-17303-120507-DR-011*	*WG-17303-032608-CB-019*	*WG-17303-061908-CB-017*	*WG-17303-092408-CB-045*	*WG-17303-030806-NR-0955*	*WG-17303-062906-LA-011*	*WG-17303-100306-NRS-038*	*WG-17303-120606-EV-014*	*WG-17303-030807-DR-005*	*WG-17303-060807-DR-032*	*WG-17303-090607-NRS-014*
Sample Date:		*12/05/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/06/2006*	*03/08/2007*	*06/08/2007*	*09/06/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	0.05 U	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00014 J	0.002 U	0.002 U	0.002 U	0.00059 J	0.00049 J	0.0003 J	0.002 U	0.00028 J	0.00022 J	0.00049 J
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.0038 J	**0.0104**[deh]	0.0055	0.006	0.005 U	0.005 U	0.0048 J	0.0064
Barium	mg/L	0.103	0.0653 J	0.118	0.124	0.342	0.217	0.207	0.18	0.199	0.177	0.184
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.00077 J	0.00084 J	0.001 U	0.001 U	0.000088 J	0.00011 J	0.00012 J
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	**0.0144**[d]	0.0087	0.005 U	0.005 U	0.0021 J	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	0.01 U	0.01 U	0.01 U
Cobalt	mg/L	0.007 U	0.0025 J	0.007 U	0.007 U	0.0107	0.0088	0.0044 J	0.0063 J	0.0088	0.0056 J	0.0031 J
Copper	mg/L	0.0019 J	0.002 U	0.002 U	0.002 U	0.0067	0.0086	0.0037 U	0.0029 U	0.0042 U	0.0036 U	0.0038
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**1.21**[eh]	**1.08**[eh]	-	-	-	-	-	-	**2.53**[eh]	**1.41 J**[eh]	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	**0.653**[eh]	0.0766 J	0.052 J
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	**0.0275**[eh]	**0.0092**[eh]	0.0022 J	0.003 U	0.0026 J	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.0374	**0.0635**[eh]	**0.054**[eh]	0.0364	**2.36**[eh]	**1.61**[eh]	**1.54**[eh]	**2.09**[eh]	**2.47**[eh]	**1.93**[eh]	**1.4**[eh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	**2.55**[eh]	**1.94**[eh]	**1.74**[eh]
Mercury	mg/L	0.0002 U	0.0002 U	**0.00012 J**[d]	0.0002 U	0.0002 U	**0.0001 J**[d]	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0052 J	0.0155 J	0.02 U	0.02 U	0.0213	0.0144 J	0.0065 J	0.0083 J	0.0087 J	0.0093 J	0.0058 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.0048 J	0.0027 J	0.005 U	0.005 U	0.0011 J	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.000049 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.00021 J	0.000091 J	0.001 U	0.000032 J	0.001 U	0.000035 J	0.001 U	0.000054 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	**0.0197**[dh]	**0.0091**[h]	0.004 U	0.004 U	0.004 U	0.004 U	0.0026 J
Zinc	mg/L	0.005 J	0.01 U	0.01 U	0.01 U	0.122 U	0.031	0.007 J	0.02 U	0.0169 U	0.041	0.0129 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-030807-EV-006*	*WG-17303-042007-JJ-001*	*WG-17303-042007-JJ-002*	*WG-17303-060707-DR-031*	*WG-17303-090507-EV-007*	*WG-17303-120407-DR-003*
Sample Date:		*12/06/2007*	*03/25/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*04/20/2007*	*04/20/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:									*Duplicate*			
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	0.28 eh	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00032 J	0.002 U	0.00018 J	0.00027 J	0.00015 J	0.00045 J	-	-	0.00032 J	0.00041 J	0.00034 J
Arsenic	mg/L	0.0136 deh	0.0038 J	0.005 U	0.0049 J	0.0061	0.005 U	-	-	0.005 U	0.008	0.012 deh
Barium	mg/L	0.193	0.167	0.122	0.175	0.19	0.036 J	-	-	0.17	0.666	0.769
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	-	-	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0023 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0017 J	0.0049 J
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.02 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	mg/L	0.0072	0.0091	0.0034 J	0.0036 J	0.0106	0.0015 J	-	-	0.007 U	0.0035 J	0.0019 J
Copper	mg/L	0.0033	0.00065 J	0.002 U	0.0038	0.002	0.0033 U	-	-	0.0027 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	4.43 eh	1.37 eh	-	-	2.61 eh	1.53 eh	-	-	2.71 J eh	-	16.3 eh
Iron (dissolved)	mg/L	0.1 U	0.47 eh	0.129	0.1 U	1.18 eh	1.53 eh	-	-	3.35 eh	14.4 eh	15.8 eh
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.0022 J	0.003 U	0.0025 J	-	-	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	1.99 eh	2.09 eh	1.29 eh	0.916 eh	1.95 eh	12.6 deh	-	-	8.59 deh	13.1 deh	10.3 deh
Manganese (dissolved)	mg/L	1.71 eh	2.22 eh	1.18 eh	1.35 eh	2.02 eh	12.8 deh	-	-	8.85 deh	14.2 deh	9.85 deh
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 U	0.000096 J d	0.0002 U
Nickel	mg/L	0.0088 J	0.0083 J	0.0068 J	0.0083 J	0.0103 J	0.0086 J	-	-	0.0062 J	0.0165 J	0.014 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0071 d	-	-	0.0153 d	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.000025 J	0.001 U
Vanadium	mg/L	0.00095 J	0.00081 J	0.004 U	0.0015 J	0.004 U	0.0058 h	-	-	0.005 h	0.0027 J	0.0032 J
Zinc	mg/L	0.0134 U	0.0054 J	0.01 U	0.01 U	0.01 U	0.0103 U	-	-	0.01 U	0.0151 U	0.0314

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-42*	*IW-42*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-032408-DR-001*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*	*GW-17303-012804-MM-282*	*GW-17303-052804-DR-357*	*WG-17303-030806-NR-0957*	*WG-17303-070606-EV-028*	*WG-17303-100306-NRS-045*	*WG-17303-120506-DK-003*	*WG-17303-030807-DR-014*
Sample Date:		*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*01/28/2004*	*05/28/2004*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	0.05 U	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00047 J	0.00033 J	0.00022 J	0.00048 J	0.00026 J	-	0.00031 J	0.00068 J	0.00017 J	0.00026 J	0.00033 J
Arsenic	mg/L	0.0083	0.0067	0.0099	0.0041 J	-	-	0.0051	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.827	0.355	0.576	0.398	-	-	0.0234 J	0.0113 J	0.0138 J	0.0152 J	0.0145 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.0043 J	0.0050 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	0.01	0.01 U	-	-	-	-	-	-	0.003 J
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.0029 J	0.0070 U	-	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0013 J	0.0022	0.00088 J	0.0024	-	-	0.0042	0.0029	0.0031 U	0.0025 U	0.003 U
Cyanide (total)	mg/L	-	-	-	-	0.0033 J	-	-	-	-	-	-
Iron	mg/L	**25.3**[eh]	**14.3**[eh]	-	**19.1**[eh]	-	-	-	0.1 U	-	-	0.112
Iron (dissolved)	mg/L	**27.7**[eh]	**14.2**[eh]	**18.1**[eh]	**18.9**[eh]	-	-	-	0.1 U	-	-	0.1 U
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**14.5**[deh]	**10.1**[deh]	**6.47**[deh]	**7.06**[deh]	-	-	**9.3**[deh]	**9.86**[deh]	**10.8**[deh]	**11.6**[deh]	**11.8**[deh]
Manganese (dissolved)	mg/L	**14.4**[deh]	**9.36**[deh]	**5.69**[eh]	**7.4**[deh]	-	-	-	**9.51**[deh]	-	-	**11.4**[deh]
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0108 J	0.0068 J	0.0101 J	0.0094 J	-	-	0.0034 J	0.0071 J	0.0076 J	0.0074 J	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	**0.0114**[d]	**0.0076**[d]	0.002 U	**0.0282**[d]	-	0.0015 J	**0.0082**[d]	0.005 U	0.005 U	0.005 U	0.00098 J
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.00056**[d]	-	0.000052 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.00022 J	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.000026 J
Vanadium	mg/L	0.004	0.0025 J	0.0022 J	0.004 U	-	-	**0.0173**[dh]	**0.0098**[h]	**0.0116**[h]	**0.0124**[dh]	**0.012**[h]
Zinc	mg/L	0.0052 J	0.01 U	0.01 U	0.01 U	-	-	0.0296 U	0.0154 J	0.0165 J	0.02 U	0.0235 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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R - Rejected value
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VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*WG-17303-060707-DR-026*	*WG-17303-090507-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*WG-17303-030807-DR-007*	*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*
Sample Date:		*06/07/2007*	*09/05/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	0.036 J	-	-	-	-	-	-	-
Antimony	mg/L	0.00018 J	0.00016 J	0.002 U	0.00013 J	0.00015 J	0.00019 J	0.00013 J	0.00049 J	0.00027 J	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	**0.0135**[deh]	**0.0149**[deh]	**0.0219**[deh]	**0.0164**[deh]	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.0123 J	0.0093 J	0.0114 J	0.162	0.071 J	0.346	0.335	0.0044 J	0.1 U	0.1 U	0.1 U
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0003 J	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0026 J	0.005	0.0021 J	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.004 J	0.01 U	0.01 U	0.01 U
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0028 J	0.0019 J	0.0019 J	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0009 J	0.00043 J	0.0052 U	0.0032 U	0.0031	0.0032
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.0369 J	-	0.1 U	**0.759**[eh]	**0.53**[eh]	-	**1.36**[eh]	0.124	0.1 U	-	0.1 U
Iron (dissolved)	mg/L	0.1 U	0.1 U	0.1 U	**0.443**[eh]	0.255	**4.82**[eh]	**1.46**[eh]	0.1 U	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.0021 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**9.86**[deh]	**8.72**[deh]	**9.88**[deh]	**14.8**[deh]	**15.9**[deh]	**19.5**[deh]	**8.44**[deh]	**2.83**[eh]	**0.576**[eh]	**0.734**[eh]	**5.02**[eh]
Manganese (dissolved)	mg/L	**7.55**[deh]	**8.4**[deh]	**9.45**[deh]	**13.3**[deh]	**14.7**[deh]	**18.5**[deh]	**9.02**[deh]	**1.59**[eh]	**0.327**[eh]	**0.844**[eh]	**4.88**[eh]
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.00014 J**[d]	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0065 J	0.0059 J	0.0069 J	0.0107 J	0.0082 J	0.0187 J	0.0087 J	0.02 U	0.02 U	0.002 J	0.0045 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.0013 J	0.002 U	0.002 U	0.002 U	0.002 U	**0.0758**[deh]	**0.231**[dehj]	**0.0192**[d]	0.0035
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.000024 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000061 J	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	**0.01**[h]	**0.0064**[h]	**0.0095**[h]	**0.0085**[h]	**0.0061**[h]	**0.0228**[dh]	**0.0149**[dh]	0.0036 J	0.004 U	0.0034 J	**0.0058**[h]
Zinc	mg/L	0.0101 U	0.01 U	0.01 U	0.0066 J	0.01 U	0.01 U	0.0129 U	0.01 U	0.01 U	0.01 U	0.01 U

Notes:
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The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-032508-DR-006*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*GW-17303-JH-121401-103*	*GW-17303-011402-BN-114*	*GW-17303-011402-BN-115*	*GW-17303-031402-TJ-120*	*GW-17303-031402-TJ-121*	*GW-17303-050602-MM-127*	*GW-17303-072202-MM-133*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*12/14/2001*	*01/14/2002*	*01/14/2002*	*03/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*
Sample Type:								*Duplicate*		*Duplicate*		
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	0.0414 J	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	0.00021 J	0.00022 J	0.00018 J	-	-	-	-	-	-	-
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	-	-	-	-	-	-	-
Barium	mg/L	0.0025 J	0.0024 J	0.1 U	0.0025 J	-	-	-	-	-	-	-
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-	-	-
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	-	-
Chromium	mg/L	0.0048 J	0.005 U	0.005 U	0.005	-	-	-	-	-	-	-
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	0.01 UJ	0.01 U	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	-	-	-	-	-	-	-
Copper	mg/L	0.00061 J	0.002 U	0.0035	0.0013 J	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.1 U	0.1 U	-	0.1 U	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	-	-	-	-	-	-	-
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.952**[eh]	**0.509**[eh]	**7.35**[deh]	**0.12**[eh]	**0.573**[eh]	**5.76**[eh]	**5.47**[eh]	**13.4**[deh]	**15.2**[deh]	**6.64**[deh]	**68**[deh]
Manganese (dissolved)	mg/L	**0.247**[eh]	**0.0516**[eh]	**9.06**[deh]	**0.233**[eh]	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	-	-
Nickel	mg/L	0.02 U	0.02 U	0.0094 J	0.02 U	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	5.54	324	327	154	174	496	257
Selenium	mg/L	**0.0299**[d]	**0.0341**[d]	**0.0058**[d]	**0.0276**[d]	-	-	-	-	-	-	-
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	-	-
Thallium	mg/L	0.001 U	0.001 U	0.00023 J	0.001 U	-	-	-	-	-	-	-
Vanadium	mg/L	0.0013 J	0.0016 J	0.0037 J	0.004 U	-	-	-	-	-	-	-
Zinc	mg/L	0.0028 J	0.01 U	0.01 U	0.01 U	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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SITE SUMMARY REPORT
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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*17303-062603-HH-IW46-203*	*17303-130803-HS-214*	*17303-130803-HS-215*	*WG-17303-030806-NR-0956*	*WG-17303-063006-EV-018*	*WG-17303-100506-NRS-062*	*WG-17303-120506-DK-008*	*WG-17303-030807-NRS-010*	*WG-17303-060507-EV-006*	*WG-17303-090507-DR-008*	*WG-17303-120407-DR-002*
Sample Date:		*06/26/2003*	*08/13/2003*	*08/13/2003*	*03/08/2006*	*06/30/2006*	*10/05/2006*	*12/05/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*
Sample Type:				*Duplicate*								
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	0.00075 J	0.00052 J	0.0023	0.00066 J	0.00062 J	0.0004 J	0.002 U	0.00056 J
Arsenic	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	-	-	-	0.0063 J	0.0034 J	0.0044 J	0.0035 J	0.0036 J	0.0072 J	0.0115 J	0.0066 J
Beryllium	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00016 J	0.0005 U
Chromium	mg/L	-	-	-	0.005 U	0.0086	0.0063	0.0051	0.004 J	0.005 U	0.005 U	0.0031 J
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	0.007 U	0.0013 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	-	-	-	0.0032 U	0.002 U	0.0022 U	0.0026 U	0.002 U	0.0017 J	0.0021 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	0.02 U	0.02 U	-	0.1 U	-	-	-	-	-	0.1 U
Iron (dissolved)	mg/L	-	0.1 U	0.1 U	-	0.1 U	-	-	-	-	-	-
Lead	mg/L	-	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	33.6 deh	0.718 eh	0.684 eh	12.3 deh	7 deh	4.24 eh	3.67 eh	0.322 eh	2.81 eh	9.28 deh	2.66 eh
Manganese (dissolved)	mg/L	-	0.207 eh	0.324 eh	-	7.26 deh	-	-	-	-	-	-
Mercury	mg/L	-	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	-	-	-	0.0067 J	0.0071 J	0.0027 J	0.0045 J	0.02 U	0.003 J	0.0066 J	0.0036 J
Potassium	mg/L	264	63.6	61.4	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.00092 J	0.00084 J	0.002 U
Silver	mg/L	-	-	-	0.000062 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	-	-	-	0.001 U	0.001 U	0.000025 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	-	-	-	0.0041	0.0033 J	0.0031 J	0.0032 J	0.004 U	0.0034 J	0.0025 J	0.0056 h
Zinc	mg/L	-	-	-	0.044 U	0.02 U	0.0211	0.02 U	0.0241 U	0.0204	0.0183 U	0.0266

Notes:
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PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*	*IW-49*
Sample ID:		*WG-17303-032508-CB-011*	*WG-17303-061808-DR-008*	*WG-17303-092308-CB-031*	*GW-17303-JH-121401-104*	*GW-17303-JH-121401-105*	*GW-17303-011402-BN-116*	*GW-17303-031402-TJ-122*	*GW-17303-050602-MM-128*	*GW-072202-MM-134*	*17303-062603-HH-IW49-201*	*17303-062603-HH-IW49-202*
Sample Date:		*03/25/2008*	*06/18/2008*	*09/23/2008*	*12/14/2001*	*12/14/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*06/26/2003*	*06/26/2003*
Sample Type:						*Duplicate*						*Duplicate*
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	0.0319 J	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00025 J	0.00018 J	0.002 U	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	-	-	-	-	-
Barium	mg/L	0.0076 J	0.0058 J	0.0075 J	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	-	-	-
Chromium	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	-	-	-	-	-
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	-	-	-	-	-	-	-	-
Copper	mg/L	0.002 U	0.002 U	0.00082 J	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.1 U	0.196	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	-	-	-	-	-	-	-	-
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**3.49[eh]**	**8.3[deh]**	**8.38[deh]**	**1.02[eh]**	**1.03[eh]**	**9.88[deh]**	**11.7[deh]**	**6.39[eh]**	**2.27[eh]**	**10.5[deh]**	**1.54[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	**0.00016 J[d]**	**0.00019 J[d]**	0.0002 U	-	-	-	-	-	-	-	-
Nickel	mg/L	0.02 U	0.0055 J	0.0057 J	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	3.83	4.12	528	341	693	256	526	484
Selenium	mg/L	0.002 U	0.002 U	0.002 U	-	-	-	-	-	-	-	-
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	-	-	-
Thallium	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0025 J	0.0024 J	0.0017 J	-	-	-	-	-	-	-	-
Zinc	mg/L	0.0332	0.0272	0.0103	-	-	-	-	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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NLV - Hazardous substance is not likely to volatilize under most conditions
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U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-49*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-6*
Sample ID:		*17303-130803-HS-213*	*WG-17303-031507-NRS-038*	*WG-17303-031507-NRS-039*	*WG-17303-060707-EV-030*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*	*WG-17303-032508-CB-005*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*MW-6*
Sample Date:		*08/13/2003*	*03/15/2007*	*03/15/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/21/1997*
Sample Type:				*Duplicate*								
Parameter:	***Units***											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	0.111 eh	-	-	-	-
Antimony	mg/L	-	0.00087 J	-	0.00046 J	0.002 U	0.002 U	0.00019 J	0.002 U	0.002 U	0.00023 J	-
Arsenic	mg/L	-	0.005 U	-	0.0087	0.0135 deh	0.0107 deh	0.0097	0.0115 deh	0.0101 deh	0.008	-
Barium	mg/L	-	0.0297 J	-	0.0805 J	0.147	0.0888 J	0.0969 J	0.15	0.0906 J	0.127	-
Beryllium	mg/L	-	0.001 U	-	0.001 U	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Cadmium	mg/L	-	0.0005 U	-	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	-
Chromium	mg/L	-	0.0022 J	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-
Chromium VI (hexavalent)	mg/L	-	0.007 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	-
Cobalt	mg/L	-	0.007 U	-	0.007 U	0.002 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	-
Copper	mg/L	-	0.0067	-	0.005 U	0.0054	0.0024 U	0.003	0.002 U	0.0015 J	0.00084 J	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.02 U	0.126	-	3.21 J eh	-	3.99 eh	2.38 eh	4.1 eh	-	0.432 eh	-
Iron (dissolved)	mg/L	0.1 U	0.12	0.107	3 eh	4.91 eh	3.89 eh	2.43 eh	3.31 eh	2.31 eh	0.338 eh	-
Lead	mg/L	-	0.0028 J	-	0.0025 J	0.0021 J	0.003 U	0.0048 eh	0.003 U	0.003 U	0.003 U	0.0050 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	0.0050 U
Manganese	mg/L	1.53 eh	15.6 deh	-	13.3 deh	10.6 deh	6.57 deh	4.73 eh	7.03 deh	5.98 eh	3.75 eh	-
Manganese (dissolved)	mg/L	0.554 eh	14.4 deh	14 deh	14.1 deh	9.42 deh	6.08 eh	5.19 eh	6.47 deh	5.93 eh	3.62 eh	-
Mercury	mg/L	-	0.0002 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-
Nickel	mg/L	-	0.0081 J	-	0.0061 J	0.0072 J	0.0043 J	0.0036 J	0.02 U	0.02 U	0.02 U	-
Potassium	mg/L	102	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	0.002 U	-	0.002 U	0.00067 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-
Silver	mg/L	-	0.0002 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-
Thallium	mg/L	-	0.000027 J	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Vanadium	mg/L	-	0.0064 h	-	0.006 h	0.0051 h	0.0025 J	0.0049 h	0.0069 h	0.0051 h	0.0185 dh	-
Zinc	mg/L	-	0.0276 U	-	0.01 U	0.0134 U	0.01 U	0.0138	0.01 U	0.01 U	0.01 U	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-030806-NR-0958*	*WG-17303-063006-LR-019*	*WG-17303-100506-NRS-063*	*WG-17303-100506-NRS-064*	*WG-17303-120606-AF-013*	*WG-17303-030807-EV-017*	*WG-17303-060507-DR-008*	*WG-17303-090507-DR-009*	*GW-17303-120607-DR-027*	*WG-17303-032508-CB-013*	*WG-17303-061908-DR-019*
Sample Date:		*03/08/2006*	*06/30/2006*	*10/05/2006*	*10/05/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/06/2007*	*03/25/2008*	*06/19/2008*
Sample Type:					*Duplicate*							
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	0.0753[eh]	-
Antimony	mg/L	0.00013 J	0.00052 J	0.0006 J	0.00027 J	0.002 U	0.00013 J	0.00017 J	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0053 U
Barium	mg/L	0.126	0.113	0.125	0.124	0.115	0.122	0.115	0.0997 J	0.115	0.117	0.104
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00037 J	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00019 J	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0036	0.002 U	0.0024 U	0.0021 U	0.002 U	0.0031 U	0.0023 U	0.002 U	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	7.31[eh]	-	-	-	-	-	-	7.36[eh]	7.32[eh]	-
Iron (dissolved)	mg/L	-	6.76[eh]	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.342[eh]	0.347[eh]	0.345[eh]	0.338[eh]	0.299[eh]	0.352[eh]	0.326[eh]	0.315[eh]	0.305[eh]	0.33[eh]	0.355[eh]
Manganese (dissolved)	mg/L	-	0.324[eh]	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0001 J[d]	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.003 J	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0126 U	0.01 U	0.01 U	0.01 U	0.0041 J	0.01 U

Notes:
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW18-03*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-092308-CB-029*	*WG-17303-070706-EV-032*	*WG-17303-030806-LA-0960*	*WG-17303-070606-EV-027*	*WG-17303-100306-NRS-046*	*WG-17303-120606-JJ-011*	*WG-17303-120606-JJ-012*	*WG-17303-030907-JJ-027*	*WG-17303-060507-EV-009*	*WG-17303-090507-DR-010*	*WG-17303-120507-DR-012*
Sample Date:		*09/23/2008*	*07/07/2006*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/05/2007*	*12/05/2007*
Sample Type:								*Duplicate*				
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	-	0.00064 J	0.0013 J	0.002 U	0.00096 J	0.002 U	0.00015 J	0.00022 J	0.002 U	0.002 U
Arsenic	mg/L	0.0044 J	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0037 J
Barium	mg/L	0.105	-	0.046 J	0.0322 J	0.0403 J	0.0372 J	0.0384 J	0.0283 J	0.0276 J	0.0228 J	0.0292 J
Beryllium	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0004 J	0.001 U
Cadmium	mg/L	0.0005 U	-	0.00054 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00013 J	0.00011 J	0.0005 U	0.0005 U
Chromium	mg/L	0.0023 J	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	-	0.0032 J	0.0021 J	0.007 U	0.0012 J	0.007 U	0.0013 J	0.007 U	0.0013 J	0.007 U
Copper	mg/L	0.0008 J	-	0.0084	0.0087	0.0057	0.0022 U	0.0023 U	0.0033 U	0.0048 U	0.0042	0.0032
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	**88.4[eh]**	-	**11.3[eh]**	-	-	-	-	-	-	**10.2[eh]**
Iron (dissolved)	mg/L	-	**88.9[eh]**	-	**9.9[eh]**	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.29[eh]**	**5.22[eh]**	**0.472[eh]**	**0.354[eh]**	**0.292[eh]**	**0.25[eh]**	**0.257[eh]**	**0.332[eh]**	**0.33[eh]**	**0.286[eh]**	**0.245[eh]**
Manganese (dissolved)	mg/L	-	**5.5[eh]**	-	**0.316[eh]**	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	-	0.0042 J	0.0036 J	0.0028 J	0.002 J	0.0016 J	0.02 U	0.0039 J	0.0041 J	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	-	0.005 U	0.0035 J	0.005 U	0.005 U	0.005 U	0.0037	0.0025 U	0.0011 J	0.0013 J
Silver	mg/L	0.0002 U	-	0.0002 UJ	0.0002 U	0.0002 U	0.0002 UJ	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	-	0.000031 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0063 J	-	0.02 U	0.0225	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U	0.0038 J

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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-032608-CB-020*	*WG-17303-061908-CB-018*	*WG-17303-092408-CB-047*	*MW-18-45*	*MW-18-45*	*WG-17303-030806-NR-0959*	*WG-17303-070606-EV-029*	*WG-17303-100306-NRS-039*	*WG-17303-120506-DK-004*	*WG-17303-030807-DR-013*	*WG-17303-060707-DR-027*
Sample Date:		*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/19/1996*	*03/21/1997*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*	*06/07/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	0.05 U	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	0.002 U	0.002 U	-	-	0.00052 J	0.00049 J	0.00024 J	0.0003 J	0.00052 J	0.0003 J
Arsenic	mg/L	0.005 U	0.005 U	0.0045 J	-	-	0.0046 J	0.005 U	0.005 U	0.0046 J	0.0044 J	0.0059
Barium	mg/L	0.0231 J	0.0208 J	0.0246 J	-	-	0.219	0.146	0.16	0.171	0.173	0.153
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.00017 J	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	0.01 U	0.01 U
Cobalt	mg/L	0.007 U	0.0018 J	0.007 U	-	-	0.0109	0.0083	0.0085	0.0092	0.0095	0.0063 J
Copper	mg/L	0.002 U	0.002 U	0.002 U	-	-	0.0044	0.0029	0.0031 U	0.0035 U	0.0029 U	0.0025 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**8.2[eh]**	-	-	-	-	-	**2.15[eh]**	-	-	**5.48[eh]**	**4.49 J[eh]**
Iron (dissolved)	mg/L	-	-	-	-	-	-	**2.33[eh]**	-	-	**5.03[eh]**	**3.65[eh]**
Lead	mg/L	0.003 U	0.003 U	0.003 U	**0.0240[eh]**	0.0040	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	0.0050 U	0.0050 U	-	-	-	-	-	-
Manganese	mg/L	**0.323[eh]**	**0.655[eh]**	**0.319[eh]**	-	-	**2.5[eh]**	**2.14[eh]**	**1.87[eh]**	**1.87[eh]**	**2.17[eh]**	**1.72[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	**2.19[eh]**	-	-	**2.2[eh]**	**1.52[eh]**
Mercury	mg/L	0.0002 U	0.0002 U	**0.00014 J[d]**	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.0037 J	-	-	0.0068 J	0.0056 J	0.0055 J	0.0075 J	0.02 U	0.0049 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	-	-	**0.0056[d]**	0.005 U	0.005 U	0.005 U	0.00078 J	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	-	-	0.000063 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	-	-	0.000075 J	0.000067 J	0.00016 J	0.001 U	0.0002 J	0.000073 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0027 J	0.01 U	0.01 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.0143 U	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*	*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*
Sample Date:		*06/07/2007*	*09/05/2007*	*09/05/2007*	*12/05/2007*	*12/05/2007*	*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*
Sample Type:		*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	0.05 U	0.0206 J	-	-	-	-
Antimony	mg/L	0.00023 J	0.002 U	0.002 U	0.00063 J	0.00034 J	0.00016 J	0.00014 J	0.00035 J	0.00027 J	0.00018 J	0.002 U
Arsenic	mg/L	0.0053	0.005 U	0.005 U	0.0057	0.0044 J	0.0103 deh	0.0086	0.0109 deh	0.0139 deh	0.0266 deh	0.0238 deh
Barium	mg/L	0.149	0.171	0.166	0.252	0.262	0.249	0.246	0.197	0.195	0.233	0.217
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.00011 J	0.0005 U	0.0005 U	0.00014 J	0.00013 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.004 J	0.01 UJ	0.002 J
Cobalt	mg/L	0.006 J	0.0081	0.0077	0.009	0.0097	0.0083	0.0065 J	0.0051 J	0.0052 J	0.0069 J	0.007
Copper	mg/L	0.0023 U	0.0022 U	0.0022 U	0.0023	0.0022	0.00053 J	0.00066 J	0.0022	0.0024	0.001 J	0.0011 J
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	4.39 J eh	-	-	4.52 eh	4.72 eh	6.14 eh	6.08 eh	10.2 eh	10.1 eh	-	-
Iron (dissolved)	mg/L	3.84 eh	4.06 eh	4.78 eh	4.21 eh	4.36 eh	5.85 eh	5.96 eh	9.42 eh	9.86 eh	13.3 eh	13.2 eh
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	1.7 eh	2.15 eh	2.06 eh	2.28 eh	2.4 eh	1.59 eh	1.57 eh	1.62 eh	1.59 eh	1.18 eh	1.24 eh
Manganese (dissolved)	mg/L	1.59 eh	2 eh	2 eh	2.37 eh	2.34 eh	1.64 eh	1.69 eh	1.58 eh	1.61 eh	1.11 eh	1.09 eh
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0048 J	0.0072 J	0.0063 J	0.0048 J	0.0059 J	0.0059 J	0.0049 J	0.0053 J	0.0061 J	0.0072 J	0.008 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.0022 U	0.002 U	0.002 U	0.0016 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.000064 J	0.001 U	0.001 U	0.00019 J	0.00018 J	0.001 U	0.001 U	0.0002 J	0.001 U	0.00016 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.01 U	0.01 U	0.012	0.0113	0.0041 J	0.0045 J	0.01 U	0.01 U	0.01 U	0.01 U

Notes:
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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW19-17*	*MW19-18*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*
Sample ID:		*WG-17303-032609-CB-090*	*WG-17303-032609-CB-091*	*GW-17303-012804-MM-285*	*GW-17303-012804-MM-286*	*WG-17303-031006-NR-0954*	*GW-17303-062806-EV-005*	*WG-17303-100306-LA-042*	*WG-17303-120706-EV-028*	*WG-17303-031207-EV-030*	*WG-17303-060607-EV-017*	*WG-17303-090707-EV-029*
Sample Date:		*03/26/2009*	*03/26/2009*	*01/28/2004*	*01/28/2004*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/07/2006*	*03/12/2007*	*06/06/2007*	*09/07/2007*
Sample Type:			*Duplicate*									
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00017 J	0.0002 J	-	-	0.00033 J	0.00075 J	0.002 U	0.00027 J	0.00021 J	0.00017 J	0.002 U
Arsenic	mg/L	**0.0186**[deh]	**0.0164**[deh]	-	-	**0.0127**[deh]	0.0069	**0.016**[deh]	**0.0118**[deh]	0.005 U	**0.0156**[deh]	**0.0138**[deh]
Barium	mg/L	0.218	0.218	-	-	0.319	0.0826 J	0.288	0.32	0.167	0.249	0.233
Beryllium	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00034 J
Cadmium	mg/L	0.0005 U	0.0005 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.0017 J	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0082	0.0076	0.0020 J	0.0014 J	0.007 U	0.0033 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0016 J	0.0013 J	-	-	0.0024 U	0.002 U	0.002 U	0.0025 U	0.0033 U	0.0017 J	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**10.4**[eh]	**10.3**[eh]	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	**10**[eh]	**10**[eh]	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**1.28**[eh]	**1.24**[eh]	-	-	**6.81**[deh]	**1.08**[eh]	**4.33**[eh]	**5.33**[eh]	**3.19**[eh]	**3.28**[eh]	**3.62**[eh]
Manganese (dissolved)	mg/L	**1.23**[eh]	**1.29**[eh]	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0077 J	0.0073 J	-	-	0.003 J	0.0065 J	0.0015 J	0.0024 J	0.02 U	0.02 U	0.0015 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	**0.0099**[d]	**0.0101**[d]	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.0011 J	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	-	-	0.0002 U	0.000053 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0106 U	0.01 U	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.0138 U	0.008 J	0.01 U

Notes:
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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*GS-7*	*GS-7*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample ID:		*GW-17303-120607-DR-028*	*WG-17303-032708-MC-031*	*WG-17303-061908-DR-027*	*WG-17303-092408-DR-046*	*WG-17303-030906-NR-0973*	*WG-17303-062906-NRS-007*	*WG-17303-100306-LA-043*	*WG-17303-100306-LA-044*	*WG-17303-120606-JJ-025*	*WG-17303-030807-JJ-009*	*WG-17303-060607-EV-020*
Sample Date:		*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*	*03/09/2006*	*06/29/2006*	*10/03/2006*	*10/03/2006*	*12/06/2006*	*03/08/2007*	*06/06/2007*
Sample Type:									*Duplicate*			
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	0.05 U	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	0.00017 J	0.002 U	0.00014 J	0.00025 J	0.00041 J	0.00025 J	0.00024 J	0.002 U	0.00033 J	0.00034 J
Arsenic	mg/L	**0.0133**[deh]	0.005 U	0.0103 U	0.0087	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.29	0.184	0.205	0.196	0.272	0.312	0.365	0.372	0.362	0.373	0.327
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00018 J	0.00038 J
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 J	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0016 J	0.007 U
Copper	mg/L	0.002 U	0.00093 J	0.002 U	0.0013 J	0.0027 U	0.002 U	0.0032 U	0.0031 U	0.002 U	0.0036 U	0.0035
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**30.2**[eh]	-	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**4.73**[eh]	**1.99**[eh]	**2.9**[eh]	**1.88**[eh]	**0.436**[eh]	**0.394**[eh]	**0.412**[eh]	**0.422**[eh]	**0.392**[eh]	**0.385**[eh]	**0.392**[eh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	**0.00014 J**[d]	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.0046 J	0.0044 J	0.0058 J	0.005 J	0.0048 J	0.02 U	0.0053 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U	0.0036 J	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.000027 J	0.001 U	0.00014 J	0.00014 J	0.001 U	0.00015 J	0.000064 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.0049 J	0.01 U	0.01 U	0.02 U	0.0111 J	0.0105 J	0.007 J	0.02 U	0.0251 U	0.0498

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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-5*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*
Sample ID:		*WG-17303-090607-EV-019*	*GW-17303-120607-DR-030*	*WG-17303-032708-MC-027*	*WG-17303-092308-DR-036*	*MW-5*	*MW-12*	*WG-17303-100506-NRS-061*	*WG-17303-120706-DK-029*	*WG-17303-030807-NRS-012*	*WG-17303-060507-EV-010*	*WG-17303-090507-DR-005*
Sample Date:		*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*03/21/1997*	*03/21/1997*	*10/05/2006*	*12/07/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	0.0241 J	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00031 J	0.00021 J	0.00014 J	0.002 U	-	-	0.00046 J	0.00025 J	0.00017 J	0.00018 J	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.298	0.37	0.332	0.386	-	-	0.0352 J	0.0397 J	0.0313 J	0.0375 J	0.0325 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.00015 J	0.00016 J	0.0005 U	0.00018 J	-	-	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00033 J
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.0023 J	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	-	-	0.0022 J	0.0012 J	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0027 U	0.0024 U	0.00042 J	0.0015 J	-	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	0.41 [eh]	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.0050 U	0.0050 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	0.0050 U	0.0050 U	-	-	-	-	-
Manganese	mg/L	0.339 [eh]	0.418 [eh]	0.344 [eh]	0.339 [eh]	-	-	0.0807 [eh]	0.0617 [eh]	0.0046 J	0.0391	0.0335
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0045 J	0.0065 J	0.02 U	0.0065 J	-	-	0.0017 J	0.0026 J	0.02 U	0.0018 J	0.0024 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	-	-	0.005 U	0.005 U	0.002	0.0024 U	0.0011 J
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.00014 J	0.00014 J	0.001 U	0.001 U	-	-	0.00012 J	0.001 U	0.000069 J	0.000038 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.017 U	0.014 U	0.0088 J	0.0076 J	-	-	0.0094 J	0.0282 U	0.01 U	0.01 U	0.01 U

Notes:
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The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-13*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*
Sample ID:		*WG-17303-120407-DR-001*	*WG-17303-032508-CB-014*	*WG-17303-061808-DR-007*	*WG-17303-092308-CB-033*	*WG-17303-080805-DR-0836*	*WG-17303-030706-NR-0949*	*WG-17303-070606-EV-026*	*WG-17303-100406-NRS-058*	*WG-17303-120606-DK-017*	*WG-17303-030807-NRS-011*	*WG-17303-060507-EV-012*
Sample Date:		*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*08/08/2005*	*03/07/2006*	*07/06/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	0.05 U	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00017 J	0.002 U	0.002 U	0.002 U	0.00013 J	0.00029 J	0.00051 J	0.00031 J	0.002 U	0.00028 J	0.00027 J
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.0392 J	0.0323 J	0.0389 J	0.0345 J	0.0263 J	0.047 J	0.0429 J	0.0532 J	0.047 J	0.0399 J	0.0407 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.00074 J	0.00052 J	0.002	0.0017 J	0.0023 U	0.0026 U	0.0037 U	0.006 U
Cyanide (total)	mg/L	-	-	-	-	0.010 U	-	-	-	-	-	-
Iron	mg/L	0.1 U	0.1 U	0.1 U	-	-	-	0.1 U	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	0.1 U	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.0438	0.0059 J	**0.0507[eh]**	0.0371	0.0089 J	0.0316	0.0074 J	**0.109[eh]**	**0.0937[eh]**	0.0488	**0.0956[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	0.015 U	-	-	-	-
Mercury	mg/L	0.0002 U	**0.00013 J[d]**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0022 J	0.02 U	0.02 U	0.0022 J	0.02 U	0.0025 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.0014 J	0.002 U	0.002 U	0.002 U	0.005 U	0.0033 J	0.0033 J	0.005 U	0.0033 J	0.003	0.0029 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000057 J	0.001 U	0.000025 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.0044 J	0.01 U	0.0065 J	0.02 U	0.0202 U	0.0102 J	0.017 J	0.02 U	0.0134 U	0.01 U

Notes:
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*WG-17303-090607-NRS-017*	*WG-17303-120507-DR-014*	*WG-17303-032508-MC-009*	*WG-17303-092308-CB-035*	*WG-17303-030706-LA-0945*	*WG-17303-062906-NRS-008*	*WG-17303-100406-LA-051*	*WG-17303-120606-LA-024*	*WG-17303-030807-JJ-008*	*WG-17303-060607-DR-019*	*WG-17303-090607-EV-021*
Sample Date:		*09/06/2007*	*12/05/2007*	*03/25/2008*	*09/23/2008*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*	*06/06/2007*	*09/06/2007*
Sample Type:												
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	0.0312 J	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00023 J	0.00019 J	0.00013 J	0.002 U	0.00041 J	0.00038 J	0.00048 J	0.002 U	0.00026 J	0.00024 J	0.00027 J
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.0455 J	0.0642 J	0.0485 J	0.0547 J	0.135	0.131	0.222	0.132	0.154	0.112	0.147
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.00013 J	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.00043 J	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0016 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.0019 J	0.00071 J	0.0015 J	0.0023	0.002 U	0.0029 U	0.002 U	0.0028 U	0.0028	0.0028
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	0.1 U	-	-	0.174	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	0.0326 J	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.0499	**0.0781**[eh]	**0.0954**[eh]	**0.0906**[eh]	0.0084 J	0.0088 J	**0.0867**[eh]	0.0148 J	**0.0555**[eh]	0.0193	0.0288
Manganese (dissolved)	mg/L	-	-	-	-	-	0.0071 J	-	-	-	-	-
Mercury	mg/L	**0.00015 J**[d]	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.0033 J	0.0028 J	0.0035 J	0.0021 J	0.0033 J	0.02 U	0.0028 J	0.0019 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.0011 J	0.002 U	0.0024	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.002 U	0.00072 J	0.00082 J
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.000046 J	0.001 U	0.001 U	0.001 U	0.00018 J	0.001 U	0.00021 J	0.001 U	0.00019 J	0.00012 J	0.00034 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.0108	0.0094 J	0.0103	0.02 U	0.0082 J	0.02 U	0.02 U	0.0138 U	0.0071 J	0.0111 U

Notes:
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APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-120507-DR-017*	*WG-17303-120507-DR-018*	*WG-17303-032608-MC-022*	*WG-17303-092308-DR-038*	*WG-17303-030706-AB-0947*	*WG-17303-063006-LA-014*	*WG-17303-063006-LA-015*	*WG-17303-070506-LA-015*	*WG-17303-100406-NRS-054*	*WG-17303-120606-LA-015*	*WG-17303-030907-NRS-021*
Sample Date:		*12/05/2007*	*12/05/2007*	*03/26/2008*	*09/23/2008*	*03/07/2006*	*06/30/2006*	*06/30/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*
Sample Type:			*Duplicate*					*Duplicate*				
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	0.05 U	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.0001 J	0.00012 J	0.002 U	-	0.00023 J	0.002 U	0.00038 J
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.286	0.302	0.118	0.239	0.0816 J	0.0641 J	0.0676 J	-	0.213	0.14	0.125
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	-	0.0017 J	0.007 U	0.007 U
Copper	mg/L	0.0012 J	0.0011 J	0.002 U	0.0016 J	0.0014 J	0.002 U	0.002 U	-	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**4.45[eh]**	**4.4[eh]**	**0.408[eh]**	-	-	**0.615[eh]**	**0.597[eh]**	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	**0.593[eh]**	-	**0.578[eh]**	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.148[eh]**	**0.162[eh]**	0.0151	0.0418	**0.133[eh]**	**0.169[eh]**	**0.177[eh]**	-	**0.304[eh]**	**0.14[eh]**	**0.204[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	**0.163[eh]**	-	**0.143[eh]**	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.000099 J[d]**	-	0.0002 U	0.0002 U	**0.00012 J[d]**
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.0059 J	0.02 U	0.0025 J	0.0025 J	-	0.0019 J	0.0014 J	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.0014 J	0.002 U	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	0.0002 U	0.0002 UJ	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.00011 J	0.001 U	0.000091 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	-	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0112	0.0098 J	0.0037 J	0.0052 J	0.02 U	0.02 U	0.02 U	-	0.02 U	0.02 U	0.01 U

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YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*
Sample ID:		*WG-17303-030907-NRS-022*	*WG-17303-060607-DR-015*	*WG-17303-060607-DR-016*	*WG-17303-090707-DR-030*	*WG-17303-120507-DR-013*	*WG-17303-032608-CB-021*	*WG-17303-092308-CB-037*	*WG-17303-030706-NR-0946*	*WG-17303-070706-EV-033*	*WG-17303-100406-NRS-057*	*WG-17303-120606-LA-016*
Sample Date:		*03/09/2007*	*06/06/2007*	*06/06/2007*	*09/07/2007*	*12/05/2007*	*03/26/2008*	*09/23/2008*	*03/07/2006*	*07/07/2006*	*10/04/2006*	*12/06/2006*
Sample Type:		*Duplicate*		*Duplicate*								
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	-	0.05 U	-	-	-	-	-
Antimony	mg/L	0.00022 J	0.0003 J	0.0002 J	0.002 U	0.002 U	0.002 U	0.002 U	0.00025 J	0.00023 J	0.00016 J	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.112	0.0728 J	0.0724 J	0.106	0.129	0.1	0.136	0.0643 J	0.0685 J	0.075 J	0.0829 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.00036 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.00011 J	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.00076 J	0.00068 J	0.002 U	0.00098 J	0.002 U	0.00072 J	0.0019 J	0.0014 J	0.0024 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	1.36[eh]	0.979[eh]	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.183[eh]	0.0898[eh]	0.0895[eh]	0.174[eh]	0.184[eh]	0.125[eh]	0.179[eh]	0.067[eh]	0.183[eh]	0.189[eh]	0.206[eh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.0026 J	0.02 U	0.02 U	0.02 U	0.0029 J	0.0019 J	0.0016 J	0.0028 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.0017 J	0.0016 J	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ
Thallium	mg/L	0.000081 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00015 J	0.001 U	0.00008 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.006 J	0.0046 J	0.01 U	0.0065 J	0.01 U	0.0051 J	0.02 U	0.0069 J	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-04*	*MW19-04*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*WG-17303-030907-NRS-026*	*WG-17303-060507-DR-011*	*WG-17303-090607-NRS-020*	*WG-17303-120507-DR-015*	*WG-17303-032508-MC-010*	*WG-17303-080805-DR-0834*	*WG-17303-080805-DR-0835*	*WG-17303-030706-LA-0944*	*WG-17303-070506-EV-024*	*WG-17303-100406-NRS-053*	*WG-17303-120606-LA-023*
Sample Date:		*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/05/2007*	*03/25/2008*	*08/08/2005*	*08/08/2005*	*03/07/2006*	*07/05/2006*	*10/04/2006*	*12/06/2006*
Sample Type:								*Duplicate*				
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	-	-	-	0.05 U	-	-	-	-	-	-
Antimony	mg/L	0.00011 J	0.00015 J	0.00014 J	0.002 U	0.002 U	0.0002 J	0.00015 J	0.001 J	0.00039 J	0.00048 J	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0044 J	0.0054	0.005 U
Barium	mg/L	0.0708 J	0.0754 J	0.0725 J	0.082 J	0.0782 J	0.0251 J	0.0278 J	0.264	0.31	0.436	0.197
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0021 J	0.0016 J	0.0022 J	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.0012 J	0.002 U	0.0008 J	0.00072 J	0.0015 J	0.002	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	0.010 U	0.010 U	-	-	-	-
Iron	mg/L	-	-	-	**1.2[eh]**	**0.638[eh]**	-	-	-	**2.44[eh]**	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	**1.34[eh]**	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.28[eh]**	**0.2[eh]**	**0.188[eh]**	**0.253[eh]**	**0.249[eh]**	0.015 U	0.015 U	**0.182[eh]**	**0.126[eh]**	**0.145[eh]**	**0.0766[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	**0.114[eh]**	-	-
Mercury	mg/L	0.0002 U	0.0002 U	**0.000098 J[d]**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.0027 J	0.0016 J	0.02 U	0.02 U	0.0029 J	0.02 U	0.004 J	0.0022 J	0.02 U	0.002 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U	0.005 U	0.003 J	0.005 U	0.0024 J	0.005 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ
Thallium	mg/L	0.00009 J	0.000086 J	0.00044 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00014 J	0.001 U	0.00012 J	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.01 U	0.01 U	0.0043 J	0.004 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.1

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		***MW19-07***	***MW19-07***	***MW19-07***	***MW19-07***	***MW19-07***
Sample ID:		***WG-17303-030807-JJ-015***	***WG-17303-030807-JJ-016***	***WG-17303-060507-DR-007***	***WG-17303-090607-EV-023***	***WG-17303-090607-EV-024***
Sample Date:		***03/08/2007***	***03/08/2007***	***06/05/2007***	***09/06/2007***	***09/06/2007***
Sample Type:			***Duplicate***			***Duplicate***
Parameter:	***Units***					
Inorganics						
Aluminum	mg/L	-	-	-	-	-
Antimony	mg/L	0.00031 J	0.00029 J	0.00048 J	0.00024 J	0.00023 J
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.375	0.386	0.276	0.37	0.35
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-
Cobalt	mg/L	0.0036 J	0.0035 J	0.007 U	0.0019 J	0.0017 J
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-
Iron	mg/L	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-
Manganese	mg/L	**0.211[eh]**	**0.201[eh]**	**0.1[eh]**	**0.159[eh]**	**0.138[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	**0.0001 J[d]**	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.0021 J	0.0029 J	0.0021 J
Potassium	mg/L	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.00071 J	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.00012 J	0.00021 J	0.000042 J	0.00016 J	0.00015 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0229 U	0.0223 U	0.01 U	0.01 U	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs*	*Final Acute Value*	*PAOC 19* *MW19-07* *WG-17303-120507-DR-019* *12/05/2007*	*PAOC 19* *MW19-07* *WG-17303-032608-MC-017* *03/26/2008*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
Inorganics													
Aluminum	mg/L	ID	ID	64000	-	0.05	NLV	-	0.05	NLV	-	-	0.05 U
Antimony	mg/L	ID	ID	68	0.13	0.006	NLV	-	0.006	NLV	2.3	0.0002 J	0.00014 J
Arsenic	mg/L	ID	ID	4.3	0.01	0.01	NLV	-	0.01	NLV	0.68	0.0058	0.005 U
Barium	mg/L	ID	ID	14000	1.87	2	NLV	-	2	NLV	10.65	0.443	0.295
Beryllium	mg/L	ID	ID	290	0.0753	0.004	NLV	-	0.004	NLV	1.355	0.001 U	0.001 U
Cadmium	mg/L	ID	ID	190	0.00612	0.005	NLV	-	0.005	NLV	0.037	0.0005 U	0.0005 U
Chromium	mg/L	ID	ID	460	0.011	0.1	NLV	-	0.1	NLV	3.483	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	ID	ID	460	0.011	0.1	NLV	-	0.1	NLV	32	-	-
Cobalt	mg/L	ID	ID	2400	0.1	0.1	NLV	-	0.04	NLV	0.74	0.003 J	0.0018 J
Copper	mg/L	ID	ID	7400	0.0287	1	NLV	-	1	NLV	0.097	0.0013 J	0.002 U
Cyanide (total)	mg/L	ID	ID	57	0.0052	0.2	NLV	-	0.2	NLV	-	-	-
Iron	mg/L	ID	ID	58000	-	0.3	NLV	-	0.3	NLV	-	**3.06[eh]**	**2.41[eh]**
Iron (dissolved)	mg/L	ID	ID	58000	-	0.3	NLV	-	0.3	NLV	-	-	-
Lead	mg/L	ID	ID	ID	0.0438	0.004	NLV	-	0.004	NLV	0.779	0.003 U	0.003 U
Lead (dissolved)	mg/L	ID	ID	ID	0.0438	0.004	NLV	-	0.004	NLV	0.779	-	-
Manganese	mg/L	ID	ID	9100	6.4	0.05	NLV	-	0.05	NLV	27.597	**0.268[eh]**	**0.143[eh]**
Manganese (dissolved)	mg/L	ID	ID	9100	6.4	0.05	NLV	-	0.05	NLV	27.597	-	-
Mercury	mg/L	ID	ID	0.056	0.0000013	0.002	0.056	0.056	0.002	0.056	2.8	0.0002 U	0.0002 U
Nickel	mg/L	ID	ID	74000	0.165	0.1	NLV	-	0.1	NLV	2.97	0.02 U	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	ID	ID	970	0.005	0.05	NLV	-	0.05	NLV	0.12	0.002 U	0.002 U
Silver	mg/L	ID	ID	1500	0.0002	0.098	NLV	-	0.034	NLV	0.0011	0.0002 U	0.0002 U
Thallium	mg/L	ID	ID	13	0.0037	0.002	NLV	-	0.002	NLV	0.094	0.00015 J	0.001 U
Vanadium	mg/L	ID	ID	970	0.012	0.062	NLV	-	0.0045	NLV	0.22	0.004 U	0.004 U
Zinc	mg/L	ID	ID	110000	0.375	5	NLV	-	2.4	NLV	0.744	0.0148	0.0054 J

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-032608-MC-018*	*WG-17303-061808-DR-013*	*WG-17303-061808-DR-014*	*WG-17303-092308-CB-039*	*WG-17303-092308-CB-040*	*WG-17303-030706-AB-0948*	*WG-17303-062906-NRS-009*	*WG-17303-100406-LA-052*	*WG-17303-120606-AF-021*	*WG-17303-120606-AF-022*
Sample Date:		*03/26/2008*	*06/18/2008*	*06/18/2008*	*09/23/2008*	*09/23/2008*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*12/06/2006*
Sample Type:		*Duplicate*		*Duplicate*		*Duplicate*					*Duplicate*
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	0.05 U	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.002 U	0.00017 J	0.00017 J	0.002 U	0.002 U	0.00023 J	0.00037 J	0.0007 J	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.0036 J	0.0047 J	0.0037 J	0.005 U	0.005 U	0.0066	0.0051	0.005 U
Barium	mg/L	0.306	0.221	0.232	0.249	0.248	0.387	0.458	0.703	0.61	0.557
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.005 U	0.0037 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.0017 J	0.0018 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.00076 J	0.00099 J	0.0021	0.002 U	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**2.51[eh]**	**1.9[eh]**	**2[eh]**	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.153[eh]**	**0.163[eh]**	**0.182[eh]**	**0.132[eh]**	**0.132[eh]**	**0.237[eh]**	**0.263[eh]**	**0.436[eh]**	**0.31[eh]**	**0.281[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	**0.00023[d]**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.005 J	0.02 U	0.02 U	0.0032 J	0.003 J	0.0028 J	0.0056 J	0.0042 J	0.0043 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	0.0026 J	0.005 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 UJ
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000089 J	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.0046 J	0.01 U	0.01 U	0.0064 J	0.0049 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-030907-NRS-020*	*WG-17303-060607-DR-018*	*WG-17303-090607-EV-022*	*WG-17303-120507-DR-016*	*WG-17303-032508-MC-012*	*WG-17303-092308-CB-041*	*GW-17303-JH-121301-0100*	*GW-17303-011402-BN-111*	*GW-17303-031402-TJ-117*	*GW-17303-050602-MM-123*
Sample Date:		*03/09/2007*	*06/06/2007*	*09/06/2007*	*12/05/2007*	*03/25/2008*	*09/23/2008*	*12/13/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*
Sample Type:											
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	0.0242 J	-	-	-	-	-
Antimony	mg/L	0.00029 J	0.00025 J	0.00035 J	0.00015 J	0.002 U	0.002 U	-	-	-	-
Arsenic	mg/L	0.005 U	0.0045 J	0.005 U	0.005 U	0.0059	0.0065	-	-	-	-
Barium	mg/L	0.718	0.465	0.479	0.561	0.465	0.412	-	-	-	-
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-
Cadmium	mg/L	0.0005 U	0.0005 U	0.00051	0.0005 U	0.0005 U	0.0005 U	-	-	-	-
Chromium	mg/L	0.005 U	0.005 U	0.0019 J	0.005 U	0.005 U	0.005 U	-	-	-	-
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	-	-	-	-
Copper	mg/L	0.002 U	0.0013 J	0.0042	0.0009 J	0.002 U	0.00051 J	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	**11.7[eh]**	**7.96[eh]**	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	-	-	-
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.552[eh]**	**0.327[eh]**	**0.303[eh]**	**0.367[eh]**	**0.284[eh]**	**0.241[eh]**	**0.375[eh]**	**4.92[eh]**	**20[deh]**	**6.51[deh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-
Nickel	mg/L	0.02 U	0.0017 J	0.0033 J	0.02 U	0.02 U	0.02 U	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	8.13	591	77.3	619
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	-	-	-
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-
Thallium	mg/L	0.000034 J	0.001 U	0.00012 J	0.001 U	0.001 U	0.001 U	-	-	-	-
Vanadium	mg/L	0.004 U	0.004 U	0.003 J	0.004 U	0.004 U	0.004 U	-	-	-	-
Zinc	mg/L	0.0246 U	0.0145	0.0205	0.0156	0.0027 J	0.0073 J	-	-	-	-

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*GW-072202-MM-130*	*GW-072202-MM-131*	*17303-130803-HS-217*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*	*WG-17303-070506-EV-021*	*WG-17303-100306-EV-041*	*WG-17303-120606-DK-020*	*WG-17303-030907-EV-023*	*WG-17303-060507-DR-001*
Sample Date:		*07/22/2002*	*07/22/2002*	*08/13/2003*	*03/09/2006*	*03/09/2006*	*07/05/2006*	*10/03/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*
Sample Type:			*Duplicate*			*Duplicate*					
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	0.00018 J	0.00016 J	0.0011 J	0.00011 J	0.002 U	0.0022	0.00013 J
Arsenic	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	-	-	-	0.0864 J	0.0863 J	0.135	0.0912 J	0.0742 J	0.12	0.0839 J
Beryllium	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.00032 J	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00051	0.0005 U
Chromium	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0022 J	0.007 U
Copper	mg/L	-	-	-	0.002 U	0.002 U	0.0018 J	0.002 U	0.002 U	0.0041 U	0.00089 J
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	0.0418	-	-	**4.49[eh]**	-	-	-	-
Iron (dissolved)	mg/L	-	-	0.1 U	-	-	**3.61[eh]**	-	-	-	-
Lead	mg/L	-	-	-	0.003 U	0.003 U	0.0021 J	0.003 U	0.003 U	0.0018 J	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**2.2[eh]**	**2.04[eh]**	**10.3[deh]**	**6.01[eh]**	**6.14[eh]**	**5.75[eh]**	**5.11[eh]**	**4.68[eh]**	**5.42[eh]**	**5.26[eh]**
Manganese (dissolved)	mg/L	-	-	**10.2[deh]**	-	-	**5.85[eh]**	-	-	-	-
Mercury	mg/L	-	-	-	**0.00019 J[d]**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.00011 J[d]**	0.0002 U
Nickel	mg/L	-	-	-	0.0029 J	0.003 J	0.0034 J	0.0018 J	0.002 J	0.0181 J	0.0032 J
Potassium	mg/L	89	86	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.0024 J	0.005 U	0.0008 J	0.00077 J
Silver	mg/L	-	-	-	0.0002 U	0.0002 U	0.00016 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U
Thallium	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000042 J	0.001 U
Vanadium	mg/L	-	-	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	**0.0078[h]**	0.004 U
Zinc	mg/L	-	-	-	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.336	0.0139

Notes:
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*WG-17303-090607-EV-018*	*GW-17303-120607-DR-024*	*WG-17303-032708-CB-030*	*WG-17303-092308-DR-032*	*GW-17303-JH-121301-0101*	*GW-17303-011402-BN-112*	*GW-17303-031402-TJ-118*	*GW-17303-050602-MM-124*	*GW-072202-MM-132*	*WG-17303-030906-EV-0961*
Sample Date:		*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*12/13/2001*	*01/14/2002*	*03/14/2002*	*05/06/2002*	*07/22/2002*	*03/09/2006*
Sample Type:											
Parameter:	***Units***										
Inorganics											
Aluminum	mg/L	-	-	0.05 U	-	-	-	-	-	-	-
Antimony	mg/L	0.000086 J	0.002 U	0.002 U	0.002 U	-	-	-	-	-	0.0006 J
Arsenic	mg/L	0.005 U	0.005 U	0.0032 J	0.005 U	-	-	-	-	-	0.005 U
Barium	mg/L	0.111	0.121	0.118	0.0851 J	-	-	-	-	-	0.0979 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-	0.001 U
Cadmium	mg/L	0.00014 J	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	0.001 U
Chromium	mg/L	0.005 U	0.005 U	0.0029 J	0.005 U	-	-	-	-	-	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	-	-	-	-	-	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.00038 J	-	-	-	-	-	0.0025 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	3.4[eh]	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	-	-	-	-	-	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	3.95[eh]	4.12[eh]	3.66[eh]	3.4[eh]	0.63[eh]	4.74[eh]	8.43[deh]	160[deh]	2[eh]	15.7[deh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	0.0002 U
Nickel	mg/L	0.0023 J	0.02 U	0.0065 J	0.02 U	-	-	-	-	-	0.0167 J
Potassium	mg/L	-	-	-	-	18.6	1100	1110	1340	421	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	-	-	-	-	-	0.005 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	-	-	-	-	-	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.003 J	0.004 U	-	-	-	-	-	0.0048[h]
Zinc	mg/L	0.01 U	0.01 U	0.0807	0.012	-	-	-	-	-	0.02 U

Notes:
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-20*
Sample ID:		*WG-17303-070506-EV-022*	*WG-17303-100406-LA-056*	*WG-17303-120606-EV-019*	*WG-17303-030907-EV-024*	*WG-17303-060507-DR-002*	*WG-17303-090607-EV-015*	*GW-17303-120607-DR-025*	*WG-17303-032708-CB-029*	*WG-17303-092308-DR-030*	*WG-17303-061605-DR-0792*
Sample Date:		*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*06/16/2005*
Sample Type:											
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	-	-	0.05 U	-	-
Antimony	mg/L	0.00097 J	0.00054 J	0.002 U	0.00052 J	0.00046 J	0.00081 J	0.001 J	0.00027 J	0.002 U	0.0014 J
Arsenic	mg/L	0.005 U	0.0045 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0059	0.005 U	0.0048 J	0.0059
Barium	mg/L	0.0316 J	0.0762 J	0.0874 J	0.133	0.111	0.121	0.175	0.0892 J	0.167	0.69
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.00013 J	0.0005 U	0.00018 J	0.0005 U	0.0005 U	0.0005 U	0.001 U
Chromium	mg/L	0.005 U	0.005 U	0.0036 J	0.0024 J	0.005 U	0.0042 J	0.0075	0.005 U	0.005 U	0.004 J
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.0015 J	0.0014 J	0.0018 J	0.0018 J	0.003 J	0.0045 J	0.007 U	0.0023 J	0.0025 J
Copper	mg/L	0.0034	0.0033 U	0.002 U	0.002 U	0.0014 J	0.0021 U	0.002 U	0.0004 J	0.00097 J	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**0.528[eh]**	-	-	-	-	-	**7[eh]**	-	-	-
Iron (dissolved)	mg/L	**1.28[eh]**	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**12.8[deh]**	**13.9[deh]**	**12.5[deh]**	**12.1[deh]**	**11.8[deh]**	**9.09[deh]**	**11.5[deh]**	**8.88[deh]**	**7.58[deh]**	**12.1[deh]**
Manganese (dissolved)	mg/L	**11.7[deh]**	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.00014 J[d]**	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0158 J	0.0173 J	0.0162 J	0.015 J	0.0139 J	0.0125 J	0.0127 J	0.0088 J	0.0101 J	0.0015 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U
Silver	mg/L	0.00014 J	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000057 J
Thallium	mg/L	0.000088 J	0.000074 J	0.001 U	0.000079 J	0.001 U	0.000059 J	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	**0.0048[h]**	**0.005[h]**	**0.0046[h]**	**0.0048[h]**	0.0038 J	0.0044	**0.0049[h]**	0.0023 J	0.0025 J	**0.0064[h]**
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.01 U	0.0074 J	0.01 U	0.01 U	0.0093 J	0.0063 J	0.02 U

Notes:
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***	***IW-33***
Sample ID:		***GW-17303-JH-121301-0102***	***GW-17303-011402-BN-113***	***GW-17303-031402-TJ-119***	***GW-17303-050602-MM-125***	***GW-17303-050602-MM-126***	***GW-072202-MM-135***	***17303-130803-HS-216***	***WG-17303-031006-EV-0962***	***WG-17303-070506-EV-023***	***WG-17303-100406-LA-055***
Sample Date:		***12/13/2001***	***01/14/2002***	***03/14/2002***	***05/06/2002***	***05/06/2002***	***07/22/2002***	***08/13/2003***	***03/10/2006***	***07/05/2006***	***10/04/2006***
Sample Type:						***Duplicate***					
Parameter:	***Units***										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	0.00053 J	0.00073 J	0.00049 J
Arsenic	mg/L	-	-	-	-	-	-	-	0.006	**0.0103[deh]**	0.0066
Barium	mg/L	-	-	-	-	-	-	-	0.371	0.323	0.262
Beryllium	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Chromium	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	0.0026 J	0.0018 J	0.0014 J
Copper	mg/L	-	-	-	-	-	-	-	0.0021 U	0.0029	0.0034 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	**1.51[eh]**	-	**20.9[eh]**	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	**1.26[eh]**	-	**19.7[eh]**	-
Lead	mg/L	-	-	-	-	-	-	-	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**1.07[eh]**	**3.66[eh]**	**21[deh]**	**20.6[deh]**	**24.2[deh]**	**9.44[deh]**	**18.1[deh]**	**14.2[deh]**	**11.4[deh]**	**10.4[deh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	**18.1[deh]**	-	**10.8[deh]**	-
Mercury	mg/L	-	-	-	-	-	-	-	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	-	-	-	-	-	-	-	0.0192 J	0.0184 J	0.0247
Potassium	mg/L	20.7	1020	926	826	857	1270	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	0.005 U	0.005 U	0.005 U
Silver	mg/L	-	-	-	-	-	-	-	0.0002 U	0.00009 J	0.0002 U
Thallium	mg/L	-	-	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	-	-	-	-	-	-	-	**0.0089[h]**	**0.0062[h]**	0.0039 J
Zinc	mg/L	-	-	-	-	-	-	-	0.02 U	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*MW-2*	*MW19-09*	*MW19-09*
Sample ID:		*WG-17303-120606-EV-018*	*WG-17303-030907-EV-025*	*WG-17303-060507-DR-003*	*WG-17303-090607-EV-016*	*GW-17303-120607-DR-026*	*WG-17303-032708-CB-028*	*WG-17303-092308-DR-034*	*MW-2*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*
Sample Date:		*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*03/21/1997*	*06/16/2005*	*06/16/2005*
Sample Type:											*Duplicate*
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	0.0209 J	-	-	-	-
Antimony	mg/L	0.002 U	0.00053 J	0.00034 J	0.00045 J	0.00029 J	0.00037 J	0.002 U	-	0.00039 J	0.00046 J
Arsenic	mg/L	0.0052	0.0063	0.0084	0.0045 J	0.0095	0.0063	0.0075	-	0.005 U	0.005 U
Barium	mg/L	0.24	0.316	0.264	0.164	0.106	0.199	0.129	-	0.238	0.232
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	-	0.001 U	0.00049 J
Chromium	mg/L	0.0023 J	0.0022 J	0.005 U	0.005 U	0.0022 J	0.0025 J	0.005 U	-	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0022 J	0.0023 J	0.0021 J	0.0022 J	0.0023 J	0.0018 J	0.0024 J	-	0.0033 J	0.003 J
Copper	mg/L	0.002 U	0.002 U	0.0017 J	0.0025 U	0.002 U	0.002 U	0.0011 J	-	0.0039 U	0.0081
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	**10.2[ch]**	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.0050 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	0.0050 U	-	-
Manganese	mg/L	**9.03[deh]**	**10.7[deh]**	**8.69[deh]**	**6.35[eh]**	**7.49[deh]**	**6.3[eh]**	**5.86[eh]**	-	**0.245[eh]**	**0.243[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	**0.00015 J[d]**	0.0002 U	0.0002 U	0.0002 U	-	0.0002 U	0.0002 U
Nickel	mg/L	0.0241	0.0166 J	0.025	0.0238	0.0269	0.0122 J	0.027	-	0.0082 J	0.0087 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	0.005 U	0.005 U
Silver	mg/L	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.0003 J	0.00037 J
Vanadium	mg/L	0.0037 J	**0.0065[h]**	0.0034 J	**0.0056[h]**	0.0044	0.0037 J	0.0026 J	-	0.004 U	0.004 U
Zinc	mg/L	0.02 U	0.0142 U	0.0141	0.0111 U	0.015 U	0.0113	0.0282	-	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-10*	*MW19-25*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*	*WG-17303-031006-EV-0950*	*WG-17303-062706-EV-001*	*WG-17303-100306-EV-037*	*WG-17303-120506-LA-006*	*WG-17303-030707-DR-002*	*WG-17303-060607-EV-023*	*WG-17303-090707-EV-031*	*WG-17303-120707-DR-033*
Sample Date:		*06/16/2005*	*06/16/2005*	*03/10/2006*	*06/27/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/07/2007*	*12/07/2007*
Sample Type:											
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.0011 J	0.00055 J	0.0013 J	0.00026 J	0.00063 J	0.00039 J	0.00027 J	0.00024 J	0.002 U	0.00044 J
Arsenic	mg/L	0.0079	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.967	0.217	0.0213 J	0.0637 J	0.0982 J	0.089 J	0.0453 J	0.0483 J	0.0612 J	0.0626 J
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00038 J	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00028 J	0.00013 J	0.0005 U	0.0005 U
Chromium	mg/L	0.0043 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.0026 J	0.007 U	0.007 U	0.007 U	0.0021 J	0.0013 J	0.007 U	0.0015 J	0.007 U
Copper	mg/L	0.0023 U	0.0025 U	0.0066	0.002 U	0.0032 U	0.003 U	0.0025 U	0.0026	0.002 U	0.0025
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.0019 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**0.918[eh]**	**0.151[eh]**	**0.0781[eh]**	**0.307[eh]**	**0.224[eh]**	**0.515[eh]**	**0.401[eh]**	**0.301[eh]**	**0.26[eh]**	**0.34[eh]**
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.0061 J	0.0052 J	0.0048 J	0.0192 J	0.0086 J	0.02 U	0.006 J	0.0035 J	0.0065 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.0025 J	0.0042 J	0.005 U	0.005 U	0.005 U	0.00068 J	0.00098 J	0.002 U	0.0045
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.00023 J	0.000071 J	0.001 U	0.001 U	0.000046 J	0.00034 J	0.0004 J	0.001 U	0.00024 J
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.02 U	0.02 U	0.0226 U	0.0118 J	0.02 U	0.0297 U	0.0182 U	0.0086 J	0.01 U	0.0152 U

Notes:
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*WG-17303-032708-CB-023*	*WG-17303-092508-DR-048*	*WG-17303-032709-LS-096*	*WG-17303-031006-EV-0951*	*GW-17303-062806-EV-003*	*WG-17303-100306-EV-036*	*WG-17303-120506-LA-007*	*WG-17303-030707-DR-001*	*WG-17303-060607-EV-022*	*WG-17303-090707-DR-032*	
Sample Date:		*03/27/2008*	*09/25/2008*	*03/27/2009*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/07/2007*	
Sample Type:												
Parameter:	***Units***											
Inorganics												
Aluminum	mg/L	0.445[eh]	-	0.266[eh]	-	-	-	-	-	-	-	
Antimony	mg/L	0.00029 J	0.00041 J	-	0.00077 J	0.00059 J	0.00069 J	0.00086 J	0.0006 J	0.00054 J	0.002 U	
Arsenic	mg/L	0.005 U	0.0056	-	0.005 U	0.0135[deh]	0.005 U	0.0047 J	0.005 U	0.0049 J	0.0054	
Barium	mg/L	0.0288 J	0.0888 J	-	0.0314 J	0.242	0.0342 J	0.0527 J	0.0377 J	0.0676 J	0.0622 J	
Beryllium	mg/L	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00044 J	
Cadmium	mg/L	0.0005 U	0.00027 J	-	0.001 U	0.001 U	0.001 U	0.001 U	0.00018 J	0.00011 J	0.0005 U	
Chromium	mg/L	0.005 U	0.0066	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	
Cobalt	mg/L	0.007 U	0.0029 J	-	0.0038 J	0.007 U	0.0015 J	0.007	0.0051 J	0.0028 J	0.0046 J	
Copper	mg/L	0.0014 J	0.0089	-	0.0043	0.002 U	0.0117	0.0044 U	0.002 U	0.0021	0.0054	
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	
Lead	mg/L	0.003 U	0.0157[eh]	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	
Manganese	mg/L	0.166[eh]	0.292[eh]	-	0.86[eh]	3.74[eh]	0.343[eh]	2.15[eh]	1.39[eh]	1.26[eh]	1.62[eh]	
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/L	0.0002 U	0.0002 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Nickel	mg/L	0.0051 J	0.01 J	-	0.0105 J	0.0018 J	0.0145 J	0.0195 J	0.0105 J	0.0062 J	0.0099 J	
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/L	0.0043	0.002 U	-	0.005 U	0.005 U	0.005 U	0.005 U	0.00094 J	0.002 U	0.002 U	
Silver	mg/L	0.0002 U	0.000095 J	-	0.0002 U	0.000095 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Thallium	mg/L	0.001 U	0.001 U	-	0.00041 J	0.001 U	0.00041 J	0.001 U	0.000058 J	0.001 U	0.001 U	
Vanadium	mg/L	0.004 U	0.0063[h]	-	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	
Zinc	mg/L	0.015	0.0333	-	0.0222 U	0.02 U	0.02 U	0.02 U	0.01 U	0.0036 J	0.0105 U	

Notes:
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SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*MW-3*	*MW-18-46*	*MW-18-46*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*
Sample ID:		*WG-17303-120707-DR-034*	*WG-17303-032608-MC-024*	*WG-17303-092408-CB-049*	*WG-17303-032709-CB-097*	*MW-3*	*MW-18-46*	*MW-18-46*	*GW-17303-012804-MM-279*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-063006-EV-016*
Sample Date:		*12/07/2007*	*03/26/2008*	*09/24/2008*	*03/27/2009*	*03/21/1997*	*12/19/1996*	*03/21/1997*	*01/28/2004*	*03/09/2006*	*03/09/2006*	*06/30/2006*
Sample Type:											*Duplicate*	
Parameter:	*Units*											
Inorganics												
Aluminum	mg/L	-	0.273 [eh]	-	0.05 U	-	-	-	-	-	-	-
Antimony	mg/L	0.00021 J	0.00033 J	0.0015 J	-	-	-	-	-	0.00039 J	0.0006 J	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	-	-	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.0245 J	0.0282 J	0.0554 J	-	-	-	-	-	0.156	0.207	0.163
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	-	-	-	-	0.0050 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0048 J	0.0023 J	0.0097	-	-	-	-	0.0070 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0037	0.00037 J	0.0049	-	-	-	-	-	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	0.585 [eh]	-	-	-	-	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	-	0.0030	0.8000 [deh]	0.0530 [deh]	-	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	0.0050 U	0.0050 U	0.0050 U	-	-	-	-
Manganese	mg/L	1.25 [eh]	0.663 [eh]	0.796 [eh]	-	-	-	-	-	0.989 [eh]	0.828 [eh]	0.634 [eh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	0.0002 U	0.0002 U	0.0001 J [d]
Nickel	mg/L	0.0173 J	0.0077 J	0.0313	-	-	-	-	-	0.02 U	0.02 U	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.002 U	0.002 U	0.002 U	-	-	-	-	0.0020 U	0.005 U	0.005 U	0.005 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	-	-	-	-	-	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.0016	-	-	-	-	-	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	-	-	-	-	-	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.01 U	0.0036 J	0.0154 U	-	-	-	-	-	0.02 U	0.02 U	0.02 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*
Sample ID:		*WG-17303-063006-EV-017*	*WG-17303-100306-EV-040*	*WG-17303-120506-JJ-005*	*WG-17303-030707-DR-003*	*WG-17303-060607-DR-021*	*WG-17303-090607-EV-025*	*GW-17303-120607-DR-029*	*WG-17303-032708-CB-032*	*WG-17303-061908-DR-023*	*WG-17303-092408-DR-044*
Sample Date:		*06/30/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*
Sample Type:		*Duplicate*									
Parameter:	*Units*										
Inorganics											
Aluminum	mg/L	-	-	-	-	-	-	-	0.05 U	-	-
Antimony	mg/L	0.002 U	0.00079 J	0.00041 J	0.0001 J	0.000084 J	0.002 U	0.00035 J	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium	mg/L	0.165	0.122	0.153	0.134	0.159	0.208	0.253	0.207	0.201	0.208
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.00049 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (hexavalent)	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.00068 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	5.48[eh]	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.581[eh]	0.776[eh]	0.733[eh]	0.885[eh]	0.769[eh]	0.599[eh]	0.55[eh]	0.619[eh]	0.475[eh]	0.514[eh]
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0001 J[d]	0.0002 U	0.0002 U	0.001[d]	0.0002 U
Nickel	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.002 U	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000036 J	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.01 U	0.0064 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
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NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
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APPENDIX F.6C.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS -
INORGANICS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Unknown*
Sample Location:		***MW19-14***	***MW19-14***	***MW19-14***	***MW19-15***	***TP-A30-DRM***
Sample ID:		***GW-17303-012904-MM-290***	***GW-17303-012904-MM-291***	***GW-17303-052804-DR-356***	***GW-17303-012804-MM-284***	***W-17303-061405-BW-0778***
Sample Date:		***01/29/2004***	***01/29/2004***	***05/28/2004***	***01/28/2004***	***06/14/2005***
Sample Type:			***Duplicate***			
Parameter:	***Units***					
Inorganics						
Aluminum	mg/L	-	-	-	-	-
Antimony	mg/L	**0.016^{eh}**	**0.013^{eh}**	-	-	**22.6^{dehj}**
Arsenic	mg/L	0.0041 J	0.0075 J	-	-	0.1 U
Barium	mg/L	-	-	-	-	**4.38^{deh}**
Beryllium	mg/L	-	-	-	-	0.02 U
Cadmium	mg/L	-	-	-	-	**0.69^{deh}**
Chromium	mg/L	0.0020 J	0.0038 J	-	0.0050 U	**410^{deh}**
Chromium VI (hexavalent)	mg/L	-	-	-	-	-
Cobalt	mg/L	0.0021 J	0.0032 J	-	0.0070 U	**0.683^{deh}**
Copper	mg/L	-	-	-	-	**0.394^{d}**
Cyanide (total)	mg/L	0.0050 U	0.0050 U	-	**0.033^{d}**	-
Iron	mg/L	-	-	-	-	-
Iron (dissolved)	mg/L	-	-	-	-	-
Lead	mg/L	-	-	**0.0053^{eh}**	-	**7.25^{deh}**
Lead (dissolved)	mg/L	-	-	-	-	-
Manganese	mg/L	-	-	-	-	**8.02^{deh}**
Manganese (dissolved)	mg/L	-	-	-	-	-
Mercury	mg/L	0.00020 U	0.00020 U	-	-	**0.0158^{deh}**
Nickel	mg/L	-	-	-	-	**0.106^{eh}**
Potassium	mg/L	-	-	-	-	-
Selenium	mg/L	0.0020 U	0.0020 U	-	0.0017 J	0.1 U
Silver	mg/L	0.00050 U	0.00050 U	-	0.00050 U	**0.001 J^{d}**
Thallium	mg/L	-	-	-	-	0.00076 J
Vanadium	mg/L	-	-	-	-	**0.0425 J^{dh}**
Zinc	mg/L	-	-	-	-	**138^{deh}**

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7
- The analyte was not analyzed
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC *Sample Location:* *Sample ID:* *Sample Date:* *Sample Type:* *Parameter:*	*Units*	*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Final Acute Value*	*PAOC 18* *GS-5* *WG-17303-062906-LA-010* *06/29/2006*
		a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	
PCBs												
Aroclor-10(PCB-1016)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Aroclor-12(PCB-1221)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Aroclor-12(PCB-1232)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Aroclor-12(PCB-1242)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Aroclor-12(PCB-1248)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Aroclor-12(PCB-1254)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0082[cdeh]
Aroclor-12(PCB-1260)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.001 U
Total PCBs	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0082[cdeh]

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
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NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-5*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*
Sample ID:		*WG-17303-100306-EV-047*	*WG-17303-120506-AF-002*	*WG-17303-060507-EV-004*	*WG-17303-090607-NRS-026*	*GW-17303-120607-DR-023*	*WG-17303-030806-LA-0953*	*WG-17303-051106-NRS-001*	*WG-17303-120506-AF-001*	*WG-17303-031207-EV-031*	*WG-17303-060507-EV-005*
Sample Date:		*10/03/2006*	*12/05/2006*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/08/2006*	*05/11/2006*	*12/05/2006*	*03/12/2007*	*06/05/2007*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U D 0.0001 U	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U D 0.0001 U	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U D 0.0001 U	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U D 0.0001 U	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	**0.00044 D 0.00057[d]**	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U D 0.0001 U	0.00017 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	**0.0013[deh]**	**0.0017[deh]**	0.000084 J	0.000059 J	0.00014	**0.00041 D 0.00024[d]**	**0.00022[d]**	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	**0.0013[deh]**	**0.0017[deh]**	0.000084	0.000059	0.00014	**0.00166[deh]**	**0.00022[d]**	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-6*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*WG-17303-090507-DR-011*	*WG-17303-120507-DR-011*	*WG-17303-032608-CB-019*	*WG-17303-061908-CB-017*	*WG-17303-092408-CB-045*	*WG-17303-030806-NR-0955*	*WG-17303-062906-LA-011*	*WG-17303-100306-NRS-038*	*WG-17303-120606-EV-014*	*WG-17303-030807-DR-005*
Sample Date:		*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*03/08/2006*	*06/29/2006*	*10/03/2006*	*12/06/2006*	*03/08/2007*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00006 J	0.0001 U	0.000042 J	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00006	0.0001 U	0.000042	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*WG-17303-060807-DR-032*	*WG-17303-090607-NRS-014*	*WG-17303-032508-DR-004*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-032609-CB-093*	*WG-17303-030806-NR-0957*	*WG-17303-070606-EV-028*	*WG-17303-100306-NRS-045*
Sample Date:		*06/08/2007*	*09/06/2007*	*03/25/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*	*03/08/2006*	*07/06/2006*	*10/03/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000072 J	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000072	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-46*
Sample ID:		*WG-17303-120506-DK-003*	*WG-17303-030807-DR-014*	*WG-17303-060707-DR-026*	*WG-17303-090507-EV-001*	*WG-17303-032408-DR-002*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*WG-17303-032609-CB-089*	*WG-17303-030806-NR-0956*
Sample Date:		*12/05/2006*	*03/08/2007*	*06/07/2007*	*09/05/2007*	*03/24/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*	*03/08/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000054 J	0.00027[d]	0.0001 U	0.0001 U	0.00019
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000054	0.00027[d]	0.0001 U	0.0001 U	0.00019

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*	*IW-46*
Sample ID:		*WG-17303-063006-EV-018*	*WG-17303-100506-NRS-062*	*WG-17303-120506-DK-008*	*WG-17303-030807-NRS-010*	*WG-17303-060507-EV-006*	*WG-17303-090507-DR-008*	*WG-17303-120407-DR-002*	*WG-17303-032508-CB-011*	*WG-17303-061808-DR-008*	*WG-17303-092308-CB-031*
Sample Date:		*06/30/2006*	*10/05/2006*	*12/05/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*IW-55*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*	*MW-6*
Sample ID:		*WG-17303-032609-CB-095*	*WG-17303-030806-NR-0958*	*WG-17303-063006-LR-019*	*WG-17303-100506-NRS-063*	*WG-17303-100506-NRS-064*	*WG-17303-120606-AF-013*	*WG-17303-030807-EV-017*	*WG-17303-060507-DR-008*	*WG-17303-090507-DR-009*	*GW-17303-120607-DR-027*
Sample Date:		*03/26/2009*	*03/08/2006*	*06/30/2006*	*10/05/2006*	*10/05/2006*	*12/06/2006*	*03/08/2007*	*06/05/2007*	*09/05/2007*	*12/06/2007*
Sample Type:						*Duplicate*					
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.000074 J	0.000084 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.000074	0.000084	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-6*	*MW-6*	*MW-6*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*
Sample ID:		*WG-17303-032508-CB-013*	*WG-17303-061908-DR-019*	*WG-17303-092308-CB-029*	*WG-17303-030806-LA-0960*	*WG-17303-070606-EV-027*	*WG-17303-100306-NRS-046*	*WG-17303-120606-JJ-011*	*WG-17303-120606-JJ-012*	*WG-17303-030907-JJ-027*	*WG-17303-060507-EV-009*
Sample Date:		*03/25/2008*	*06/19/2008*	*09/23/2008*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/06/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*
Sample Type:									*Duplicate*		
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.000053 J	0.0001 U	0.0001 U	0.00034[d]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.000053	0.0001 U	0.0001 U	0.00034[d]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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ID - Insufficient data to develop criterion
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NLL - Hazardous substance is not likely to leach under most soil conditions.
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW18-07*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-090507-DR-010*	*WG-17303-120507-DR-012*	*WG-17303-032608-CB-020*	*WG-17303-061908-CB-018*	*WG-17303-092408-CB-047*	*WG-17303-030806-NR-0959*	*WG-17303-070606-EV-029*	*WG-17303-100306-NRS-039*	*WG-17303-120506-DK-004*	*WG-17303-030807-DR-013*
Sample Date:		*09/05/2007*	*12/05/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*03/08/2006*	*07/06/2006*	*10/03/2006*	*12/05/2006*	*03/08/2007*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00004 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00004	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*	*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*
Sample Date:		*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*	*12/05/2007*	*12/05/2007*	*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*
Sample Type:			*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 18*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*TP18-06*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*
Sample ID:		*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*	*WG-17303-032609-CB-091*	*L-17303-090804-BW-586*	*WG-17303-031006-NR-0954*	*GW-17303-062806-EV-005*	*WG-17303-100306-LA-042*	*WG-17303-120706-EV-028*	*WG-17303-031207-EV-030*
Sample Date:		*09/25/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*	*09/08/2004*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/07/2006*	*03/12/2007*
Sample Type:			*Duplicate*		*Duplicate*						
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.4 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	2.6[cdefghi]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	2.6[cdefghi]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
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U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*GS-7*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample ID:		*WG-17303-060607-EV-017*	*WG-17303-090707-EV-029*	*GW-17303-120607-DR-028*	*WG-17303-032708-MC-031*	*WG-17303-061908-DR-027*	*WG-17303-092408-DR-046*	*WG-17303-030906-NR-0973*	*WG-17303-062906-NRS-007*	*WG-17303-100306-LA-043*	*WG-17303-100306-LA-044*
Sample Date:		*06/06/2007*	*09/07/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*	*03/09/2006*	*06/29/2006*	*10/03/2006*	*10/03/2006*
Sample Type:											*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00017	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00017	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-12*	*MW-12*	*MW-12*
Sample ID:		*WG-17303-120606-JJ-025*	*WG-17303-030807-JJ-009*	*WG-17303-060607-EV-020*	*WG-17303-090607-EV-019*	*GW-17303-120607-DR-030*	*WG-17303-032708-MC-027*	*WG-17303-092308-DR-036*	*WG-17303-100506-NRS-061*	*WG-17303-120706-DK-029*	*WG-17303-030807-NRS-012*
Sample Date:		*12/06/2006*	*03/08/2007*	*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*10/05/2006*	*12/07/2006*	*03/08/2007*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-14*	*MW-14*	*MW-14*	*MW-14*
Sample ID:		*WG-17303-060507-EV-010*	*WG-17303-090507-DR-005*	*WG-17303-120407-DR-001*	*WG-17303-032508-CB-014*	*WG-17303-061808-DR-007*	*WG-17303-092308-CB-033*	*WG-17303-030706-NR-0949*	*WG-17303-070606-EV-026*	*WG-17303-100406-NRS-058*	*WG-17303-120606-DK-017*
Sample Date:		*06/05/2007*	*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*09/23/2008*	*03/07/2006*	*07/06/2006*	*10/04/2006*	*12/06/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0002	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00007 J	0.0001 U	0.000068 J
Total PCBs	mg/L	0.0001 U	0.0002	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00007	0.0001 U	0.000068

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW-14*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*
Sample ID:		*WG-17303-030807-NRS-011*	*WG-17303-060507-EV-012*	*WG-17303-090607-NRS-017*	*WG-17303-120507-DR-014*	*WG-17303-032508-MC-009*	*WG-17303-092308-CB-035*	*WG-17303-030706-LA-0945*	*WG-17303-062906-NRS-008*	*WG-17303-100406-LA-051*	*WG-17303-120606-LA-024*
Sample Date:		*03/08/2007*	*06/05/2007*	*09/06/2007*	*12/05/2007*	*03/25/2008*	*09/23/2008*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-01*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-030807-JJ-008*	*WG-17303-060607-DR-019*	*WG-17303-090607-EV-021*	*WG-17303-120507-DR-017*	*WG-17303-120507-DR-018*	*WG-17303-032608-MC-022*	*WG-17303-092308-DR-038*	*WG-17303-030706-AB-0947*	*WG-17303-063006-LA-014*	*WG-17303-063006-LA-015*
Sample Date:		*03/08/2007*	*06/06/2007*	*09/06/2007*	*12/05/2007*	*12/05/2007*	*03/26/2008*	*09/23/2008*	*03/07/2006*	*06/30/2006*	*06/30/2006*
Sample Type:						*Duplicate*					*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*	*MW19-02*
Sample ID:		*WG-17303-100406-NRS-054*	*WG-17303-120606-LA-015*	*WG-17303-030907-NRS-021*	*WG-17303-030907-NRS-022*	*WG-17303-060607-DR-015*	*WG-17303-060607-DR-016*	*WG-17303-090707-DR-030*	*WG-17303-120507-DR-013*	*WG-17303-032608-CB-021*	*WG-17303-092308-CB-037*
Sample Date:		*10/04/2006*	*12/06/2006*	*03/09/2007*	*03/09/2007*	*06/06/2007*	*06/06/2007*	*09/07/2007*	*12/05/2007*	*03/26/2008*	*09/23/2008*
Sample Type:					*Duplicate*		*Duplicate*				
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00016
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00016

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-03*	*MW19-07*
Sample ID:		*WG-17303-030706-NR-0946*	*WG-17303-070706-EV-033*	*WG-17303-100406-NRS-057*	*WG-17303-120606-LA-016*	*WG-17303-030907-NRS-026*	*WG-17303-060507-DR-011*	*WG-17303-090607-NRS-020*	*WG-17303-120507-DR-015*	*WG-17303-032508-MC-010*	*WG-17303-030706-LA-0944*
Sample Date:		*03/07/2006*	*07/07/2006*	*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/05/2007*	*03/25/2008*	*03/07/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*
Sample ID:		*WG-17303-070506-EV-024*	*WG-17303-100406-NRS-053*	*WG-17303-120606-LA-023*	*WG-17303-030807-JJ-015*	*WG-17303-030807-JJ-016*	*WG-17303-060507-DR-007*	*WG-17303-090607-EV-023*	*WG-17303-090607-EV-024*	*WG-17303-120507-DR-019*	*WG-17303-032608-MC-017*
Sample Date:		*07/05/2006*	*10/04/2006*	*12/06/2006*	*03/08/2007*	*03/08/2007*	*06/05/2007*	*09/06/2007*	*09/06/2007*	*12/05/2007*	*03/26/2008*
Sample Type:						*Duplicate*			*Duplicate*		
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.000049 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 J
Total PCBs	mg/L	0.000049	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
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ID - Insufficient data to develop criterion
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U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*
Sample Location:		*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-07*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*
Sample ID:		*WG-17303-032608-MC-018*	*WG-17303-061808-DR-013*	*WG-17303-061808-DR-014*	*WG-17303-092308-CB-039*	*WG-17303-092308-CB-040*	*WG-17303-030706-AB-0948*	*WG-17303-062906-NRS-009*	*WG-17303-100406-LA-052*	*WG-17303-120606-AF-021*	*WG-17303-120606-AF-022*
Sample Date:		*03/26/2008*	*06/18/2008*	*06/18/2008*	*09/23/2008*	*09/23/2008*	*03/07/2006*	*06/29/2006*	*10/04/2006*	*12/06/2006*	*12/06/2006*
Sample Type:		*Duplicate*		*Duplicate*		*Duplicate*					*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
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PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
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PAOC		*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 19*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*MW19-24*	*IW-9*	*IW-9*	*IW-9*	*IW-9*
Sample ID:		*WG-17303-030907-NRS-020*	*WG-17303-060607-DR-018*	*WG-17303-090607-EV-022*	*WG-17303-120507-DR-016*	*WG-17303-032508-MC-012*	*WG-17303-092308-CB-041*	*WG-17303-030906-EV-0963*	*WG-17303-030906-NR-0965*	*WG-17303-070506-EV-021*	*WG-17303-100306-EV-041*
Sample Date:		*03/09/2007*	*06/06/2007*	*09/06/2007*	*12/05/2007*	*03/25/2008*	*09/23/2008*	*03/09/2006*	*03/09/2006*	*07/05/2006*	*10/03/2006*
Sample Type:									*Duplicate*		
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.000086 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00067 deh	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.000086	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00067 deh	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
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FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-9*	*IW-12*	*IW-12*	*IW-12*
Sample ID:		*WG-17303-120606-DK-020*	*WG-17303-030907-EV-023*	*WG-17303-060507-DR-001*	*WG-17303-090607-EV-018*	*GW-17303-120607-DR-024*	*WG-17303-032708-CB-030*	*WG-17303-092308-DR-032*	*WG-17303-030906-EV-0961*	*WG-17303-070506-EV-022*	*WG-17303-100406-LA-056*
Sample Date:		*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*03/09/2006*	*07/05/2006*	*10/04/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000052 J	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000052	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
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PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-12*	*IW-20*	*IW-33*	*IW-33*
Sample ID:		*WG-17303-120606-EV-019*	*WG-17303-030907-EV-024*	*WG-17303-060507-DR-002*	*WG-17303-090607-EV-015*	*GW-17303-120607-DR-025*	*WG-17303-032708-CB-029*	*WG-17303-092308-DR-030*	*WG-17303-061605-DR-0792*	*WG-17303-031006-EV-0962*	*WG-17303-070506-EV-023*
Sample Date:		*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*06/16/2005*	*03/10/2006*	*07/05/2006*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000086 J	**0.0005[d]**
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000086	**0.0005[d]**

Notes:
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YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*	*PAOC 23*
Sample Location:		*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*IW-33*	*MW19-09*	*MW19-09*
Sample ID:		*WG-17303-100406-LA-055*	*WG-17303-120606-EV-018*	*WG-17303-030907-EV-025*	*WG-17303-060507-DR-003*	*WG-17303-090607-EV-016*	*GW-17303-120607-DR-026*	*WG-17303-032708-CB-028*	*WG-17303-092308-DR-034*	*WG-17303-061605-DR-0794*	*WG-17303-061605-DR-0795*
Sample Date:		*10/04/2006*	*12/06/2006*	*03/09/2007*	*06/05/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*09/23/2008*	*06/16/2005*	*06/16/2005*
Sample Type:											*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 23*	*PAOC 23*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*MW19-10*	*MW19-25*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*
Sample ID:		*WG-17303-061605-DR-0793*	*WG-17303-061605-DR-0796*	*WG-17303-031006-EV-0950*	*WG-17303-062706-EV-001*	*WG-17303-100306-EV-037*	*WG-17303-120506-LA-006*	*WG-17303-030707-DR-002*
Sample Date:		*06/16/2005*	*06/16/2005*	*03/10/2006*	*06/27/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*
Sample Type:								
Parameter:	*Units*							
PCBs								
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0003[d]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0003[d]	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

APPENDIX F.6D.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*Acute Inhalation Screening Level*	*Flammability and Explosivity Screening Level*	*Groundwater Contact Criteria*	*Groundwater Surface Water Interface Criteria*	*Nonresidential Drinking Water Criteria*	*Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Water Solubility*	*Residential Drinking Water Criteria*	*Residential Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs*	*Final Acute Value*	*PAOC 29*	*PAOC 29*
Sample Location:												*GS-3*	*GS-3*
Sample ID:												*WG-17303-060607-EV-023*	*WG-17303-090707-EV-031*
Sample Date:												*06/06/2007*	*09/07/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*		
PCBs													
Aroclor-10(PCB-1016)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U
Total PCBs	mg/L	ID	ID	0.0033	0.0002	0.0005	0.045	0.0447	0.0005	0.045	ID	0.0001 U	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
- The analyte was not analyzed
ft BGS - feet below ground surface
ID - Insufficient data to develop criterion
J - The associated value is an estimated concentration
NLL - Hazardous substance is not likely to leach under most soil conditions.
NLV - Hazardous substance is not likely to volatilize under most conditions
R - Rejected value
U - Not present at or above the associated value
UJ - The associated value is an estimated reporting limit
VSIC - Volatile Soil Inhalation Criteria

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-3*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*
Sample ID:		*WG-17303-120707-DR-033*	*WG-17303-032708-CB-023*	*WG-17303-061908-CB-026*	*WG-17303-092508-DR-048*	*WG-17303-121008-CB-070*	*WG-17303-031006-EV-0951*	*GW-17303-062806-EV-003*	*WG-17303-100306-EV-036*	*WG-17303-120506-LA-007*	*WG-17303-030707-DR-001*	*WG-17303-060607-EV-022*
Sample Date:		*12/07/2007*	*03/27/2008*	*06/19/2008*	*09/25/2008*	*12/10/2008*	*03/10/2006*	*06/28/2006*	*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*
Sample Type:												
Parameter:	*Units*											
PCBs												
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.000093 J	0.0001 U	0.0001 U	0.0001 U	0.000049 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Total PCBs	mg/L	0.0001 U	0.000093	0.0001 U	0.0001 U	0.0001 U	0.000049	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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U - Not present at or above the associated value
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APPENDIX F.6D.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*
Sample Location:		*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*GS-4*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*
Sample ID:		*WG-17303-090707-DR-032*	*WG-17303-120707-DR-034*	*WG-17303-032608-MC-024*	*WG-17303-061908-CB-025*	*WG-17303-092408-CB-049*	*WG-17303-121008-CB-071*	*WG-17303-030906-LA-0964*	*WG-17303-030906-LA-0966*	*WG-17303-063006-EV-016*	*WG-17303-063006-EV-017*
Sample Date:		*09/07/2007*	*12/07/2007*	*03/26/2008*	*06/19/2008*	*09/24/2008*	*12/10/2008*	*03/09/2006*	*03/09/2006*	*06/30/2006*	*06/30/2006*
Sample Type:									*Duplicate*		*Duplicate*
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.0001 U	0.0001	0.0001 U	0.000087 J	0.0001 U	0.000089 J	0.000066 J	0.0001 U	0.0001 U
Total PCBs	mg/L	0.0001 U	0.0001 U	0.0001	0.0001 U	0.000087	0.0001 U	0.000089	0.000066	0.0001 U	0.0001 U

Notes:
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APPENDIX F.6D.2

PAOC 19 - GROUNDWATER ANALYTICAL RESULTS - PCBs
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

PAOC		*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*PAOC 29*	*Unknown*
Sample Location:		*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*MW19-12*	*TP-A30-DRM*
Sample ID:		*WG-17303-100306-EV-040*	*WG-17303-120506-JJ-005*	*WG-17303-030707-DR-003*	*WG-17303-060607-DR-021*	*WG-17303-090607-EV-025*	*GW-17303-120607-DR-029*	*WG-17303-032708-CB-032*	*WG-17303-061908-DR-023*	*WG-17303-092408-DR-044*	*W-17303-061405-BW-0778*
Sample Date:		*10/03/2006*	*12/05/2006*	*03/07/2007*	*06/06/2007*	*09/06/2007*	*12/06/2007*	*03/27/2008*	*06/19/2008*	*09/24/2008*	*06/14/2005*
Sample Type:											
Parameter:	*Units*										
PCBs											
Aroclor-10(PCB-1016)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1221)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1232)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1242)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1248)	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1254)	mg/L	0.0001 U	0.0001 U	0.000069 J	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-12(PCB-1260)	mg/L	0.0001 U	0.000088 J	0.0001 U	0.0001 U	0.000091 J	0.000067 J	0.000093 J	0.0001 U	0.000039 J	0.0001 U
Total PCBs	mg/L	0.0001 U	0.000088	0.000069	0.0001 U	0.000091	0.000067	0.000093	0.0001 U	0.000039	0.0001 U

Notes:
The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The metal concentrations at the Site are below the background concentrations, therefore, the results were not compared against the Part 201 statewide Background levels
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APPENDIX G

ADVANCED FIELD INVESTIGATION TECHNIQUES (EM/ER)

APPENDIX G

ADVANCED FIELD INVESTIGATION TECHNIQUES

The following sections present a description of the advanced field investigation techniques used at the Site.

GEOPHYSICS SURVEYS

The geophysical program utilized both electromagnetic (EM) and electrical resistivity (ER) methods. EM surveys were completed using EM31 and EM61 instruments, both manufactured by Geonics Ltd. The ER profiles were completed using a Syscal R1 Plus receiver manufactured by Iris instruments, and 54-electrode spread. Previous investigations completed by CRA have indicated that results from combined EM surveys are generally effective in detecting buried metallic objects. In addition, ER results have proven an effective, non-intrusive method of mapping the top of clay sequences in environments where there is sufficient resistivity contrast between stratigraphic units. Prior to commencement of the EM and ER surveys, reference grids were established over the area of investigation.

EM Surveys

The EM31 consists of transmitter and receiver coils located at opposite ends of a 14-foot long boom. In vertical dipole mode, this coil configuration yields an approximate depth of penetration of 20 feet. The EM31 is capable of operating simultaneously in both terrain conductivity and metal detection modes. The EM31 survey was completed along 6-foot spaced survey lines. The EM31 was used in metal detection mode, to detect buried metal objects.

EM31 metal detection anomalies can be characterized by two types of responses. Large anomalies covering a relatively wide area are identified by elevated responses, whereas smaller anomalies are characterized by very low (negative responses). The explanation of these results can be attributed to the 14-foot separation between the transmitter and receiver coils of the EM31. When sources of anomalies are much larger than the 14-foot coil spacing, the signal received by the EM31 becomes saturated, resulting in an elevated reading. When an object is smaller than the 14-foot coil spacing, the secondary field induced in the object opposes the primary field, yielding a negative resultant field (expressed as a percentage of the primary field.)

The EM61 is a time-domain buried metal detector that consists of two rectangular transmitting and receiving coils in a stacked configuration, connected to a data logger. The coils measure approximately 1.5 by 3 feet, and are mounted to a wheeled cart. The transmitting coil emits 150 EM pulses per second into the ground at each measuring point. During the off-time between transmitted pulses, receiver coils measure the decay of the transient electrical currents induced by the pulses. Electrical currents in moderately conductive earth materials (including moist clays, mineralized soils, etc.) dissipate rapidly, leaving only the more prolonged currents due to buried metal objects. The EM61 detects and measures the prolonged transient currents, yielding a result in millivolts (mV) proportional to the metallic content of the buried object, and inversely proportional to its burial depth. Due to its stacked coil configuration, the EM61 is less susceptible to potential sources of interference including parked vehicles, fence lines, staged drums, power lines, etc. The EM61 survey was completed along 3-foot spaced survey lines by automatically triggering a reading at 0.65-foot stations. The effective depth of penetration of the EM61 is approximately 10 feet.

The EM31 and EM61 data were processed as colored, contour plots, which were superimposed on survey plans of the Site.

ER Survey

The ER survey was completed using a Syscal R1 Plus resistivity meter, which functions simultaneously as a transmitter and receiver. The objective of the survey was to identify the top of clay surface between a depth of 15 to 25 feet below ground surface (bgs), based on the resistivity contrast between the clay and overlying fine sands. The survey utilized a 54-electrode spread with 1-meter (3.3-foot) electrode spacings, yielding a depth of penetration of approximately 30 feet and a total electrode spread of approximately 180 feet per profile. Automatic switching was programmed into the reading sequence to cycle measurements between respective quadripoles or measuring points. Ground surface elevations were measured along the survey lines, to facilitate topographic correction of the data.

The ER data was plotted as colored, contour pseudosections of apparent resistivity, and then processed with the RES2DINV inversion software program. The inversion program provided a model resistivity section for each profile, representing the interpreted subsurface stratigraphy based on the apparent resistivity data. Three-dimensional (3-D) visualizations of the ground surface,

interpreted top of clay surface, intrusive investigation locations (piezometers, monitoring wells) and services (sewers and outfalls) were also prepared for the survey completed in PAOC 18.

A second survey was completed along the southern property boundary to identify hydraulically conductive (elevated electrical resistivity) areas that may be acting as preferential pathways for off-Site groundwater migration.

APPENDIX H

RESPONSE ACTION SUPPORTING DOCUMENTATION

APPENDIX H

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APPENDIX H.1

INTERIM RESPONSE STATUS REPORT

INTERIM RESPONSE ACTION STATUS REPORT
COMPANY VEHICLE OPERATIONS AREA
FORMER WILLOW RUN ASSEMBLY PLANT

GENERAL MOTORS CORPORATION
YPSILANTI, MICHIGAN

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For - ENCORE

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EXECUTIVE SUMMARY

Conestoga-Rovers & Associates (CRA) was retained by ENCORE to design and implement a groundwater Interim Response Action (IRA) at the Company Vehicle Operations (CVO) Area at the former Willow Run Assembly Plant located in Ypsilanti, Michigan (Site). The shallow groundwater (determined not to be a drinking water unit) has been impacted by chlorinated and non-chlorinated volatile organic compounds (VOCs). This report summarizes the full-scale implementation and results after four potassium permanganate ($KMnO_4$) injection events.

The IRA was designed to reduce VOC concentrations in two areas to levels that can achieve compliance with Michigan Department of Environmental Quality (MDEQ) groundwater/surface water interface (GSI) criteria through natural attenuation (NA). In addition to reducing the VOC concentration to levels that will support NA, the IRA will be used to reduce groundwater concentrations to below acute GSI values (final acute values, FAV). The constituents of concern (COC) at the Site are trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-DCE), and vinyl chloride.

Four $KMnO_4$ injections were completed between December 2001 and June 2002 at 45 injection wells installed in two areas where COC concentrations are the highest (hot spots, Area 1 and Area 2). Groundwater samples were collected prior to the first injection and following each injection to monitor the COC concentrations. An additional sampling event was conducted in November 2002 to evaluate the results of the injections.

The groundwater level varied significantly throughout the year. Levels increased during the early spring months and decreased during the summer months. Significant amounts of light non-aqueous phase liquid (LNAPL) was observed at two injection wells in injection Area 1.

The groundwater IRA was designed to reduce the COC concentrations within the hot spots to levels that would facilitate NA. Therefore, the criteria used to evaluate the effectiveness of the chemical oxidation remediation is not the Part 201 criteria, but merely a reduction in COC concentrations to a level below the baseline concentrations. In addition to the reduction in COC concentrations, the groundwater IRA is used to reduce the COCs to comply with the FAV.

Overall results of the injections relative to the baseline data in Area 1 are mixed. All three regularly sampled wells have one or two COC concentrations greater than the

baseline data. Each well also shows additional Site-specific VOC concentrations that have increased to levels above the baseline values.

The results for Area 2 generally showed decreases in concentrations. Both regularly monitored Area 2 wells showed significant decreases in most chemicals. The concentration of one COC (vinyl chloride) in IW-46 exceeded the baseline groundwater concentrations recorded.

The decrease and rebound in VOC concentrations following $KMnO_4$ injection is not an uncommon occurrence with this technology. When this phenomena occurs, its an indication that residual product may be present within the soil formation. Rising groundwater (due to natural precipitation or short-term rises due to the injections) displaces residual LNAPL and releases it into the groundwater (Area 1). When LNAPL is not present (Area 2), increases in groundwater concentrations can occur from desorbtion from contaminated soil to groundwater.

The effectiveness of chemical oxidation in Area 1 was significantly inhibited due to the presence of diesel range organics (DRO), gasoline range organics (GRO) and LNAPL in the area around IW-16 and IW-26. The DRO, GRO and LNAPL have high COD demands and consume $KMnO_4$ before it reaches and reacts with the VOC-impacted groundwater.

In Area 2, beneficial results were observed in response to $KMnO_4$ injection, but the effectiveness was inhibited by desorbtion of VOCs from contaminated soil to groundwater that occurred due to fluctuating water levels. Results indicate that Area 2 conditions support additional $KMnO_4$ injections.

Additional investigation and remedial activities are planned to be completed at the Site, including:

- The installation of additional groundwater monitoring points closer to Tyler Pond for the evaluation of GSI criteria and FAV;
- Implementation of a Soil IRA in Area 1 to remove the LNAPL followed by additional chemical oxidation injections;
- Continuation of additional $KMnO_4$ injections in Area 2;
- Investigation of underground utilities that may act as potential pathways for contaminants to travel off-Site and to evaluate conditions of historical utilities (former diesel fuel line) at the Site; and
- Continuation of the groundwater monitoring program, on a semi-annual basis.

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LIST OF ACRONYMS

COC	CONSTITUENTS OF CONCERN
COD	CHEMICAL OXYGEN DEMAND
CRA	CONESTOGA-ROVERS & ASSOCIATES
CVO	COMPANY VEHICLE OPERATIONS
DCE	1,2-DICHLOROETHENE
DRO	DIESEL RANGE ORGANICS
FAV	FINAL ACUTE VALUES
gpm	GALLONS PER MINUTE
GPR	GROUND PENETRATING RADAR
GRO	GASOLINE RANGE ORGANICS
GSI	GROUNDWATER/SURFACE WATER INTERFACE
IRA	INTERIM RESPONSE ACTION
$KMnO_4$	POTASSIUM PERMANGANATE
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
MDEQ	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
NA	NATURAL ATTENUATION
TCE	TRICHLOROETHENE
VOC	VOLATILE ORGANIC COMPOUND

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) was retained by ENCORE[1] to design and implement a groundwater Interim Response Action (IRA) at the Company Vehicle Operations (CVO) Area at the former Willow Run Assembly Plant located in Ypsilanti, Michigan (Site). Figure 1.1 presents the Site location. The eastern part of the Site has undergone a considerable amount of investigation. These investigations indicate that the shallow groundwater (determined not to be a drinking water unit) has been impacted by chlorinated and non-chlorinated volatile organic compounds (VOCs).

Although the shallow groundwater is not used for drinking water, the Site is bordered to the north by Tyler Pond and as such an IRA is required to address the exceedance of the Michigan Department of Environmental Quality (MDEQ) groundwater/surface water interface (GSI) criteria pursuant to Michigan Act 451, Part 201. The IRA was designed to reduce VOC concentrations in two areas with higher concentrations at the Site to levels that will allow natural attenuation (NA) to achieve compliance with criteria listed in Part 201 of Public Act 451 (GSI criteria being the driving concern at the Site). In addition to reducing the VOC concentrations to levels that will support NA, the IRA will be used to reduce groundwater concentrations so that they are below acute GSI values, in accordance with the recently revised MDEQ Part 201 rules (December 21, 2002).

[1] ENCORE is a wholly owned subsidiary of General Motors.

2.0 BACKGROUND

A feasibility study was completed to evaluate groundwater remediation options for the Site in January 2000. A number of remedial technologies were evaluated to address the VOC groundwater plume, which covered a fairly large area and included two areas of higher concentrations (hot spots), Area 1 and Area 2, as shown in Figure 2.1. The constituents of concern (COC) at the Site are trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride. Based on the COC distribution and the likely effectiveness of applicable technologies, the assessment concluded chemical oxidation by injection in the hot spots (Area 1 and Area 2) would provide the best opportunity to reduce COC concentrations in the groundwater to the point where they could naturally attenuate and applicable Part 201 criteria would be achieved throughout the plume (the feasibility of natural attenuation will need to be evaluated at a later point after the hot spots have been remediated).

To determine the appropriate approach for chemical oxidation, a laboratory treatability study was conducted to confirm the concentration and type of chemical oxidant to be injected. Potassium permanganate ($KMnO_4$) was the selected oxidant and was effective with concentrations ranging from one to five percent $KMnO_4$ by weight in water. The treatability study results showed that chemical oxidation using $KMnO_4$ was effective in significantly lowering the vinyl chloride concentrations in representative groundwater samples from the Site.

A pilot test was conducted in May 2001 to optimize the $KMnO_4$ concentration, the rate of application, refine the spacing between injection wells, and estimate the costs for full-scale treatment. The tests indicated significant reductions in TCE, cis-DCE, and vinyl chloride. Based on the success of the pilot study, full-scale implementation of the chemical oxidation treatment was recommended for the two hot spots in the CVO portion of the Site. The results of the pilot test were used to prepare the design and specifications for full-scale implementation (CRA, 2001).

This report summarizes the full-scale implementation and results after four $KMnO_4$ injection events.

3.0 DESIGN AND IMPLEMENTATION

3.1 FULL SCALE DESIGN

The following schedule was recommended based on the pilot study test results:

Injection frequency:	Every eight weeks.
Injection quantity:	250 gallons of 2 wt% $KMnO_4$ solution and 250 gallons of flush water.
Total number of injections:	Four to six estimated depending on actual monitoring results.
Monitoring frequency:	Monitoring should be conducted prior to treatment and then three weeks after each injection.

Forty injection wells were installed in Area 1 and 15 injection wells were installed in Area 2, as shown in Figure 2.1. The wells were installed to approximately the top of the underlying clay layer and the well depths vary from 16 to 19 feet and average about 17 feet below ground surface. The well screens are 5 and 10 feet in length and alternate with each well. The 10-foot well screens provided are completed in both the vadose and saturated zones, while the 5-foot well screens are completed in the lower part of the saturated zone only. Although the field pilot study used a 10-foot well screen, a 5-foot well screen was selected for every other well to ensure that the chemical oxidant would be injected to the lower part of the water bearing unit, and not preferentially enter the vadose zone at every injection well.

3.2 FULL SCALE IMPLEMENTATION

Baseline groundwater samples were collected on December 13, 2001 from five injection wells. The same wells were sampled following each injection event. Wells IW-9, IW-12, and IW-33 were sampled in Area 1 and wells IW-46 and IW-49 were sampled in Area 2.

The groundwater sampling and injection events are summarized as follows:

Event	*Date of Injections*	*Date of Groundwater Sampling Event*
Baseline Sampling	N/A	December 13-14, 2001
1st Injection	December 17-31, 2001	January 14, 2002
2nd Injection	February 11-19, 2002	March 14, 2002
3rd Injection	April 15-22, 2002	May 6, 2002
4th Injection	June 17-24, 2002	July 22, 2002

Injections were gravity fed. Initial attempts to pump the material into the well resulted in $KMnO_4$ solution running up along the well casing annulus and onto the ground surface. Overall injection rates averaged between five and eight gallons per minute (gpm). In several cases, even gravity feed resulted in the injection solution rising to the ground level. In these cases the injection flow was reduced until the solution no longer escaped the well area at the ground surface.

Several wells produced very high injection rates. The highest injection rate observed was 125 gpm at IW-16. The lowest injection rate for IW-16 was 50 gpm. The injection wells with consistently high injection rates included IW-8, IW-9, IW-14 and IW-16. These atypically high rates may be due to these wells being screened in the bedding of a storm sewer or some other subsurface cavity. The $KMnO_4$ solution and water flush injection rates are shown in Tables 3.1 through 3.4.

All injections consisted of a $KMnO_4$ injection followed by a water flush except for the fourth injection. The five wells that were being sampled were not flushed with water after the $KMnO_4$ injection. All the wells other wells were flushed with 250 gallons of water.

4.0 GROUNDWATER MONITORING METHODOLOGY

4.1 WATER LEVEL MEASUREMENTS

Groundwater level measurements were collected to track mounding of the waterbearing unit during injection. Measurement frequencies included immediately before the first injection, approximately one-week after each injection event and during the post-injection sampling events.

4.2 POST-INJECTION MONITORING

To monitor the VOC destruction results of the $KMnO_4$ injections, groundwater was sampled immediately prior to the first injection to obtain baseline results for the VOC levels and between three and four weeks after each injection event. The same five wells were sampled during each sampling event.

The groundwater samples were analyzed for Site-specific VOCs, chloride, $KMnO_4$, manganese and potassium. Following the first, third and fourth injections groundwater samples were also analyzed for aerobic and anaerobic total microbial populations. Field measurements included pH, specific conductivity, temperature, turbidity, dissolved oxygen and oxidation-reduction potential.

4.3 COMPREHENSIVE GROUNDWATER MONITORING

In November 2002, a groundwater-sampling event was conducted at the CVO area to monitor what changes (if any) had occurred since the last post-injection groundwater sampling event. Consistent with post injection sampling events described in Section 4.2, samples were collected from injection wells IW-9, IW-12, IW-33, IW-46 and IW-49. In addition to the five regularly sampled wells, four injection and five monitoring wells were sampled including IW-2, IW-18, IW-26, IW-30, IW-45, MW3, MW4, MW12, MW13 and MW14. Monitoring wells MW5 and MW6/GP18 were not sampled as planned because they were damaged. Well MW5 was crushed and MW6/GP18 was backfilled and covered with asphalt.

Samples from the November 2002 groundwater-sampling event were analyzed for VOCs, chloride, gasoline range organics (GRO), diesel range organics (DRO) and chemical oxygen demand (COD). Field measurements included pH, specific conductivity, temperature, turbidity, dissolved oxygen and oxidation-reduction potential.

5.0 DISCUSSION OF GROUNDWATER MONITORING RESULTS

5.1 GROUNDWATER LEVEL MEASUREMENTS

Groundwater levels have fluctuated considerably since the baseline monitoring was conducted in December 2001. Groundwater levels in Area 1 and Area 2 increased between 0.06 and 5.6 inches respectively, between each of the first three monitoring events. This period spans the winter and early spring months (December to April). Falling water levels were observed beginning with the fourth monitoring event (July) and continued to fall through the November sampling event. The significant drop in groundwater levels between the July and November measurements was over 24 inches in some wells. The groundwater level measurements for each well are shown in Table 5.1.

During groundwater level measurements following the second injection in February 2002, light non-aqueous phase liquid (LNAPL) was observed for the first time in Area 1 well IW-16. During subsequent injection events, small amounts of LNAPL were observed on the water level probe used at IW-16. This well contained 10.3 inches of LNAPL in November 2002. The oil was dark brown in color and had a motor oil odor. Well IW-16 is located just north of the above ground gasoline and diesel fuel tanks and possibly in the bedding of a storm sewer.

In November 2002, LNAPL was also detected in Area 1 well IW-26 at a thickness of 6.6 inches. Water/LNAPL level measurements were collected from additional injection wells located along the storm sewer line that runs through the northeast portion of Area 1. Well IW-16 was the only other injection well along the sewer line that exhibited LNAPL.

Injection well IW-26 is located near the storm sewer line discussed above and also the former diesel fuel line which runs east/west and turns to run south at IW-26. The location of the former diesel fuel line is shown on Figure 2.1.

5.2 POST-INJECTION RESULTS

The baseline and post injection analytical results are presented in Table 5.2. The laboratory analytical data reports are provided in Appendix A. Complete documentation of the data review and validation is also provided in Appendix B.

The first $KMnO_4$ injection resulted in significant reductions in COCs TCE, cis-DCE, and vinyl chloride.

The second $KMnO_4$ injection produced mixed results for most wells. Two of the three wells in Area 1 showed continued reduction in COCs. The third well in Area 1 showed significant increases in some COCs. One of the two wells sampled in Area 2 showed a significant increase in cis-DCE. Other COCs in the two wells showed increases or little change in concentration. The increases in detected concentrations of certain COCs is likely due to the rising groundwater releasing residual COC previously held in the vadose zone into the groundwater.

The third $KMnO_4$ injection resulted in COCs reductions relative to the second injection event in four of the five wells sampled.

The fourth $KMnO_4$ injection produced mixed results. Three of the five wells showed significant increases, and two of the wells showed little change (one of these two wells already met the GSI criteria prior to the fourth injection).

5.3 COMPREHENSIVE GROUNDWATER MONITORING RESULTS

The November 2002 analytical results are presented in Table 5.3. In addition the results from the post-injection regularly sampled wells are presented in Table 5.2. The laboratory analytical data reports are provided in Appendix A. Complete documentation of the data review and validation is also provided in Appendix B.

5.3.1 AREA 1

Area 1 consists of 40 injection wells located at the west end of the CVO property. Three wells (IW-9, IW-12, and IW-33) have been regularly monitored following $KMnO_4$ injections. Four additional injection wells (IW-2, IW-18, IW-26, and IW-30) and one monitoring well (MW3) located northeast of the Area 1 injection wells were sampled in November. Well MW3 is included as part of Area 1 evaluation due to its location between Area 1 and Tyler Pond. Figure 5.1 presents the locations of the Area 1 wells sampled during the November 2002 sampling event.

As discussed in Section 5.1, LNAPL was detected in one well in February 2002 (IW-16), and in two wells (IW-16 and IW-26) in November 2002. The presence of LNAPL in these wells has likely impacted the effectiveness of the $KMnO_4$ treatment of groundwater at

these locations, as the LNAPL has a high COD demand and would have consumed the $KMnO_4$ before it was able to effectively treat the COCs in the groundwater at these locations. The COCs can be dissolved in the LNAPL and become inaccessible to attack by the $KMnO_4$. Therefore, the presence of LNAPL can significantly impact the effectiveness of chemical oxidation performance.

The groundwater collected from IW-26 exhibited the presence of both DRO and GRO. The GRO result of 4.1 mg/l is well below the average for Area 1 wells, whereas the DRO result of 1.7 mg/l is the highest DRO concentration detected in Area 1, followed closely by IW-30 with 1.6 mg/l. Injection well IW-26 is located near the storm sewer line discussed in Section 5.1 and also the former diesel fuel line shown on Figure 2.1, which runs east/west and turns to run south at IW-26.

COD, chloride, DRO and GRO concentrations are significantly greater in Area 1 wells than in Area 2 wells. The high DRO and GRO concentrations decrease the effectiveness of the $KMnO_4$ injections. GRO and DRO are organics that will react with $KMnO_4$ and consume it prior to it treating the VOCs in the groundwater. A $KMnO_4$ reaction with GRO and DRO requires a much higher stoichiometric amount of $KMnO_4$ than the reaction with TCE and vinyl chloride does because of the greater number of carbon atoms in the GRO and DRO compounds. COD results verify the adverse impact of the presence of petroleum hydrocarbon on $KMnO_4$ treatment and suggest that additional application of the oxidizing agent is required. However, unless the DRO and GRO products are removed, the effect of $KMnO_4$ will continue to be inhibited. It should be noted that there were no indications of the high organic content (GRO, DRO) or presence of LNAPL during the evaluation of the chemical oxidation remediation option.

VOCs that exceed the MDEQ Part 201 GSI Criteria in Area 1 include 1,1-dichloroethene, 1,2,4-trimethylbenzene, ethyl benzene, naphthalene, toluene, TCE, vinyl chloride, cis-DCE, trans-DCE and xylenes. Monitoring well MW3, the closest Area 1 monitoring point to Tyler Pond, exhibited an exceedance of the GSI criterion for vinyl chloride only. Three Area 1 wells exceed the GSI criterion for TCE (IW-12, IW-18, IW-26) while all wells sampled in Area 1 exceeded the criteria for vinyl chloride and cis-DCE.

Part 201 GSI Criteria are generally protective for chronic surface water impacts. However, the new MDEQ Part 201 Rules (December 21, 2002) identify specific agency notification obligations if groundwater at the GSI is found to exceed acute GSI protection values; therefore, all November 2002 groundwater values that exceeded the Part 201 GSI Criteria were compared to the final acute values (FAV) as calculated using Rule 323.1057. Four VOCs detected in the November 2002 sampling event exceed the acute GSI protection values. As discussed above, MW3 is the closest Area 1 monitoring

point to Tyler Pond. Vinyl chloride and cis-DCE concentrations detected in MW3, exceeded GSI criteria, but only vinyl chloride exceeded the FAV. Well MW3 is located approximately 90 feet from the Tyler Pond shoreline and, therefore, may not accurately represent the GSI. Additional GSI monitoring points are required to fully assess compliance of GSI criteria.

TCE concentrations in the three regularly monitored injection wells decreased to below GSI criteria following the injections. Wells IW-12 and IW-33 showed an increase in TCE concentrations between the fourth injection and the November 2002 sampling event. All Area 1 vinyl chloride and cis-DCE concentrations increased since the last sampling event. Two wells (IW-9, IW-12) increased to approximately double their baseline vinyl chloride concentration, while the third well (IW-33) showed an increase to half of its baseline vinyl chloride concentration. The cis-DCE concentrations in two wells (IW-12, IW-33) increased but are below their baseline concentrations, while one well (IW-9) increased to approximately double its baseline cis-DCE concentration.

Groundwater levels in Area 1 fell between 12 and 27 inches since the July 2002 sampling event. Fluctuations of groundwater levels act as a soil flushing/washing mechanism and can trigger the release of COCs from the vadose zone. Figure 5.2 presents the approximate concentration contours for TCE, cis-DCE and vinyl chloride at the time of the November 2002 sampling event.

The groundwater remediation in Area 1 has been inhibited by the presence of LNAPL. The LNAPL may be coming from the storm sewer bedding or other subsurface void in the area (former diesel line). A Soil IRA will be conducted to remove the LNAPL, which will be followed by continued groundwater treatment by chemical oxidant injections. An evaluation of the compliance with FAV downgradient of Area 1 is currently underway.

5.3.2 AREA 2

Area 2 consists of 15 injection wells located along the south bank of Tyler Pond. Two injection wells (IW-46 and IW-49) have been regularly monitored following $KMnO_4$ injections; one additional injection well (IW-45) and one monitoring well (MW12) located east of the Area 2 injection wells were sampled in November. Figure 5.1 presents the locations of the Area 2 wells sampled during the November 2002 sampling event.

COD, chloride and DRO concentrations do not vary significantly within Area 2. The lower COD concentrations observed indicate that free product is not likely present and the organic oxidizing demand is compatible with additional $KMnO_4$ injections. The GRO concentration at IW-46 is an order of magnitude greater than other Area 2 wells. COD, chloride, DRO and GRO concentrations are significantly lower at MW-12 than in the sampled injection wells within Area 2.

VOCs that exceed the MDEQ Part 201 GSI criteria in Area 2 include TCE, vinyl chloride, cis-DCE and xylenes. The three injection wells sampled during this event exceed GSI criteria for both TCE and vinyl chloride, where only IW-46 exceeds for cis-DCE and xylenes. MW12 did not exhibit any GSI criteria exceedances. All VOCs detected in Area 2 at concentrations exceeding the GSI criteria were compared to FAV values. Well IW-46 was the only Area 2 well that exhibited a COC concentration in exceedance of a FAV (cis-DCE). Well IW-46 is located approximately 90 feet from the Tyler Pond shore and, therefore, may not accurately represent the GSI, so additional assessment is warranted.

TCE concentrations in the two regularly monitored injection wells have decreased. Vinyl chloride concentrations remain at approximately baseline levels, while cis-DCE concentrations have generally decreased.

Groundwater levels in Area 2 fell between 6 to 10 inches since the July 2002 sampling event. As discussed in Section 5.3.1, the fluctuating groundwater levels act as a soil flushing/washing mechanism and can result in the release of COCs from the vadose zone. Figure 5.2 presents the approximate concentration contours for TCE, cis-DCE and vinyl chloride at the time of the November 2002 sampling event.

The Area 2 $KMnO_4$ injections have been beneficial. All results indicate that no LNAPL is present in Area 2. Additional $KMnO_4$ injections will be completed to remediate VOCs to levels that will support NA. An evaluation of the compliance with FAV downgradient of Area 2 is currently underway.

5.3.3 SITE-WIDE WELLS

Additional Site-wide monitoring wells were added to the November 2002 sampling event to obtain a 'snap shot' of the CVO groundwater conditions. The Site-wide wells include MW4, MW13 and MW14, which are located on the south and east property boundaries, as shown in Figure 5.1. Monitoring well MW4 is located upgradient/crossgradient from Area 1, while MW13 and MW14 are

upgradient/crossgradient of Area 2. Groundwater at the Site generally moves east/northeast towards Tyler Pond.

Site-specific VOCs, DRO, or GRO were not detected above laboratory detection limits at any of the three wells. Well MW4 was the only well outside of Areas 1 and 2 that exhibited a COD value above laboratory detection limits. The COD value of 18 mg/l is well below any COD values detected in Area 1 and Area 2 injection wells. Since the GRO, DRO and VOCs were all found to be below laboratory detection limits, it is likely that the organic matter detected in the MW4 sample may be a naturally occurring carbon source. The chloride concentration of 1,530 mg/l detected in MW4 is similar to values detected in Area 1 wells IW-18 and IW-30, and well above chloride values found in Area 2 wells. Chloride concentrations detected in MW13 and MW14 (162 and 186 mg/l, respectively) are significantly lower than all other chloride concentrations detected at the Site.

Monitoring wells MW5 and MW6 were to be sampled during the November 2002 Site-wide groundwater evaluation, but were found to be damaged. Blasland Bouck & Lee obtained the last groundwater analysis available from these wells in 1996. The 1996 results indicate that DCE and vinyl chloride were present at detectable levels but were lower than the source areas (Areas 1 and 2). At present no groundwater monitoring points are available between Areas 1 and 2. These wells will be further inspected and properly abandoned and replaced if necessary.

5.4 OVERALL REMEDIATION RESULTS

The groundwater IRA was designed to reduce the COC concentrations within the hot spots to levels that would facilitate NA. Therefore, the criteria used to evaluate the effectiveness of the chemical oxidation remediation is not the Part 201 criteria, but merely a reduction in COC concentrations to a level below the baseline concentrations. In addition to the reduction in COC concentrations, the groundwater IRA is used to treat the COCs to comply with the FAV values.

Overall results of the injections relative to the baseline data in Area 1 are mixed. All three regularly sampled wells have one or two COC concentrations greater than the baseline data. Each well also shows additional Site-specific VOC concentrations that have increased to levels above the baseline values.

The results for Area 2 generally showed decreases in concentrations. Both regularly monitored Area 2 wells showed significant decreases in most chemicals. The

concentration of one COC (vinyl chloride) in IW-46 exceeded the baseline groundwater concentrations recorded.

The decrease and rebound in VOC concentrations following $KMnO_4$ injection is not an uncommon occurrence with this technology. When this phenomena occurs, its an indication that residual product may be present within the soil formation. Rising groundwater (due to natural precipitation or short-term rises due to the injections) displaces residual LNAPL and releases it into the groundwater (Area 1). When LNAPL is not present (Area 2), increases in groundwater concentrations can occur from desorbtion from contaminated soil to groundwater.

The effectiveness of chemical oxidation in Area 1 was significantly inhibited due to the presence of DRO, GRO and LNAPL in the area around IW-16 and IW-26. The DRO, GRO and LNAPL have high COD demands and consume the $KMnO_4$ before it reaches and reacts with the VOC-impacted groundwater.

In Area 2, beneficial results were observed in response to $KMnO_4$ injections, but the effectiveness was inhibited by desorbtion of VOCs from contaminated soil to groundwater that occurred due to fluctuating water levels. Results indicate that Area 2 conditions support additional $KMnO_4$ injections.

6.0 SUMMARY AND RECOMMENDATIONS

6.1 SUMMARY

Four injections of $KMnO_4$ were completed at the Site between December 2001 and June 2002. The injection program was designed to reduce COC concentrations in two concentrated areas to levels where the entire plume will be able to undergo NA and achieve compliance with Part 201 criteria. Injection Area 1 produced mixed results while injection Area 2 generally showed decreasing COC concentrations.

The mixed results in Area 1 are likely due to the presence of LNAPL in the vadose zone. Several of the wells (IW-8, IW-9, IW-14 and IW-16) in Area 1 exhibited unusually high injection flow rates. Each of these wells are thought to connect with storm sewer bedding that transects Area 1. One of these wells, IW-9, was sampled after each injection. This well consistently had the largest number of constituents that exceeded the MDEQ GSI criteria. Two other wells, IW-16 and IW-26, are also thought to connect with the same storm sewer bedding and significant amounts of LNAPL were detected in these wells during the last monitoring event. Groundwater concentrations in Area 1 have not been reduced to a level where NA can be considered as the primary remediation mechanism for the plume at the Site.

In Area 2, $KMnO_4$ injections achieved some positive results, but the overall effectiveness was likely inhibited by desorbtion from contaminated vadose zone soil to groundwater that occurred during rising and falling water level changes. Concentrations in Area 2 have not yet dropped to a level where NA can be considered as the primary remediation mechanism for the plume at the Site.

The MDEQ Part 201 revised rules (December 21, 2002) require that acute GSI values (FAV) be evaluated if chronic GSI values (Part 201 GSI criteria) are exceeded near a surface water body. An evaluation of compliance with the FAV at the Site is currently underway.

6.2 RECOMMENDATIONS

Based on the observations and results of the $KMnO_4$ injection treatment at the Site, CRA recommends five further investigation or remedial activities.

1. **GSI Monitoring Wells**
   The installation and quarterly monitoring of additional groundwater monitoring points will be completed to provide more comprehensive understanding of COC

concentrations and trends as they relate to applicable Part 201 Criteria (GSI criteria and FAV in particular). The proposed monitoring locations will be located between the CVO fence line and the south bank of Tyler Pond.

2. **Area 1 Treatment**

The LNAPL in IW-16 and IW-26 needs to be removed before groundwater remediation can be effective. A Soil IRA should be completed, followed by additional chemical oxidation injections for the groundwater.

The Soil IRA will consist of excavating a limited area in the northeast section of Area 1, where LNAPL is known to be present, so any visible free product and excessively contaminated soil can be removed (vacuum truck or absorbent material). The primary goal of the Soil IRA is to remove as much LNAPL as possible, so the effectiveness of future groundwater chemical oxidation injections can be maximized.

The excavation area is centered on the storm sewer running through the northeast section of Area 1. During the excavation the storm sewer will be inspected for evidence that groundwater may be infiltrating the sewer or using the sewer bedding as a preferential pathway to migrate from the area.

Prior to excavation, the monitoring wells in Area 1 will be checked for the presence of LNAPL. A sample of the LNAPL will be collected from IW-16 and IW-26 and a fingerprint analysis will be completed to characterize its source.

Approximately six monitoring wells will be removed during the limited excavation and will be reinstalled to allow for additional chemical injections and monitoring.

3. **Area 2 Treatment**

The groundwater sampling results, specifically the COD values indicated that further chemical treatment using $KMnO_4$ would be effective in decreasing concentrations of COCs in Area 2. Based on the thickness of the saturated zone in this area and the COD values observed, two to three additional $KMnO_4$ injections should reduce hot spot concentrations sufficiently.

4. **Underground Utilities Investigation**

An investigation of the underground utilities should be completed to identify all potential pathways that may lead contaminants off-Site. This may include dye tests to verify projected storm sewer connections and visual inspections (video camera) to determine if groundwater is infiltrating the storm sewer.

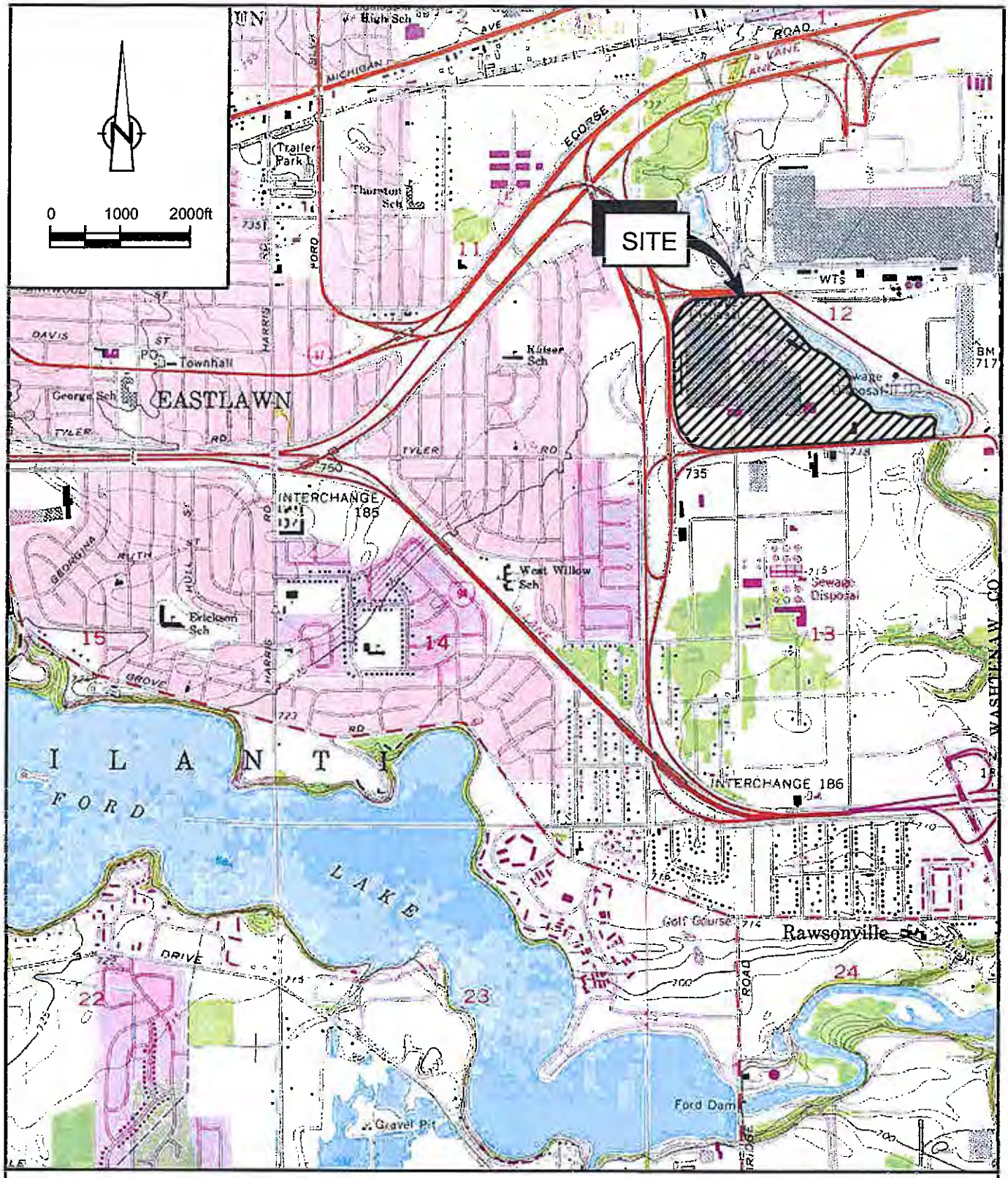
The former diesel line that runs along the north side of the maintenance building and an unknown utility line found in a sink hole on the CVO property will be located and evaluated to determine if they are potential conduits for preferential flow from the area. The conditions along these utility lines will be evaluated with ground penetrating radar (GPR) and investigative excavation. In addition, an evaluation of the usage history and current conditions of the former cyanide sludge line that runs through the CVO property from north of Tyler Pond to the Fons/Old Wayne landfills will be investigated.

5. **Continued Groundwater Monitoring**

Monitoring of groundwater VOC concentrations will continue on a semi-annual basis due to the additional monitoring associated with other planned investigations. The semi-annual monitoring will include the five regularly sampled injection wells (IW-9, IW-12, IW-33, IW-46, and IW-49), three GSI monitoring points, and MW5 and MW6 (or their replacements). Groundwater samples ill be collected from these wells analyzed for Site-specific VOCs.

7.0 REFERENCES

CRA, Chemical Oxidation Design and Technical Specifications, November 2001



SOURCE: USGS QUADRANGLE MAP;
YPSILANTI EAST, MICHIGAN

figure 1.1

SITE LOCATION
COMPANY VEHICLE OPERATIONS AREA
FORMER WILLOW RUN ASSEMBLY PLANT
Ypsilanti, Michigan

ENCORE

YPSILANTI

17303-03(002)GN-DE003 MAY 15/2003

LEGEND
- DITCH, STREAM OR RIVER BORDER
- FENCE LINE (SURVEYED)
- TREE LINE
- FORMER DIESEL FUEL LINE
- MW5 MONITORING WELL LOCATION (NOT SURVEYED)
- IW-1 INJECTION WELL LOCATION (SURVEYED)
- STORM SEWER SHOWN AS PER SITE SITE UTILITIES UNDERGROUND PLAN JOB NO. 200 BMP2078.DWG
- STORM SEWER SHOWN AS PER INVERTS FOUND BY FIELD OBSERVATIONS, AUGUST 2002
- CB15 CATCH BASIN (SURVEYED)
- MH18 MANHOLE (SURVEYED)
- PAVEMENT VARIATION (SURVEYED)
- U.P. UTILITY POLE (SURVEYED)
- R.S. FENCE GATE POST (SURVEYED)

OUTFALL
R.S.
1FT RIM
CB4
CB3
MH2
MW3
CATWALKS
TYLER POND
OUTFALL
OUTFALL
OUTFALL
AREA 1
IW-1 IW-2 IW-3 IW-4 IW-5 IW-6 IW-7 IW-8 IW-9 IW-10 IW-11 IW-12 IW-13 IW-14 IW-15 IW-16 IW-17 IW-18 IW-19 IW-20 IW-21 IW-22 IW-23 IW-24 IW-25 IW-26 IW-27 IW-28 IW-29 IW-30 IW-31 IW-32 IW-33 IW-34 IW-35 IW-36 IW-37 IW-38 IW-39 IW-40
SHED
MH1
CB9
FORMER DIESEL FUEL LINE
1FT RIM
CB8
C.B.
HAULAWAY BLDG.
HAULAWAY YARD
FORMER DIESEL FUEL LINE
1FT RIM
1FT RIM
1FT RIM
MH7
CB10
MW5
R.S.
R.S.
CB16
GUARD SHACK
R.S.
R.S.
R.S.
MW4
R.S.
R.S.
U.P.
U.P.
M.H.
M.H.
M.H.
M.H.
M.H.
TYLER ROAD
M.H.
CB5
MH6
R.S.
R.S.
MW6/GP-18
FORMER SLUDGE LINE
CB11
U.P.
IW-41 IW-42 IW-43 IW-44 IW-45 IW-46 IW-47 IW-48 IW-49 IW-50 IW-51 IW-52 IW-53 IW-54 IW-55
AREA 2
MW12
MH18
MH17
CB15
CB14
MW13
CB13
CB12
MW14
OE
U.P.
BELL M.H.
TYLER POND OUTLET STRUCTURE

NOTES:
1) ALL UNDERGROUND UTILITES AS SHOWN NEED TO BE FIELD VERIFIED
2) LOCATION OF FORMER CYANIDE SLUDGE DISCHARGE LINE BASED ON HUBBELL, ROTH & CLARK, INC., FEBRUARY 1942, JOB 330G, SHEET 1
3) LOCATION OF FORMER DIESEL FUEL LINE BASED ON BLASLAND, BOUCK & LEE, INC. 5/22/97, ATTACHMENT 4-10

MW-1U-93

N

0 50 100ft

ENCORE

figure 2.1

SITE PLAN
COMPANY VEHICLE OPERATIONS AREA
FORMER WILLOW RUN ASSEMBLY PLANT
Ypsilanti, Michigan

17303-03(002)GN-DE004 MAY 16/2003

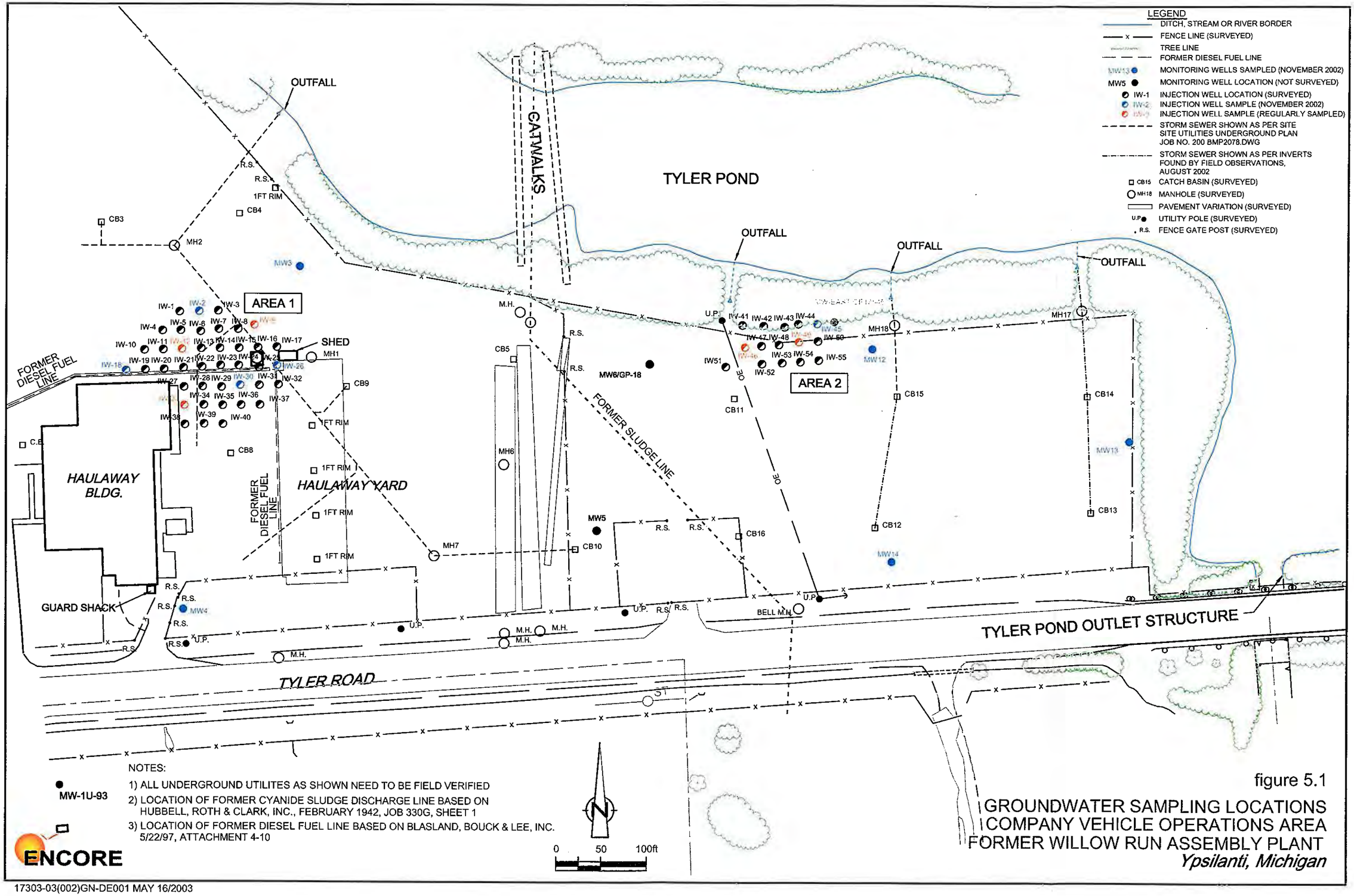


figure 5.1

GROUNDWATER SAMPLING LOCATIONS
COMPANY VEHICLE OPERATIONS AREA
FORMER WILLOW RUN ASSEMBLY PLANT
Ypsilanti, Michigan

17303-03(002)GN-DE001 MAY 16/2003

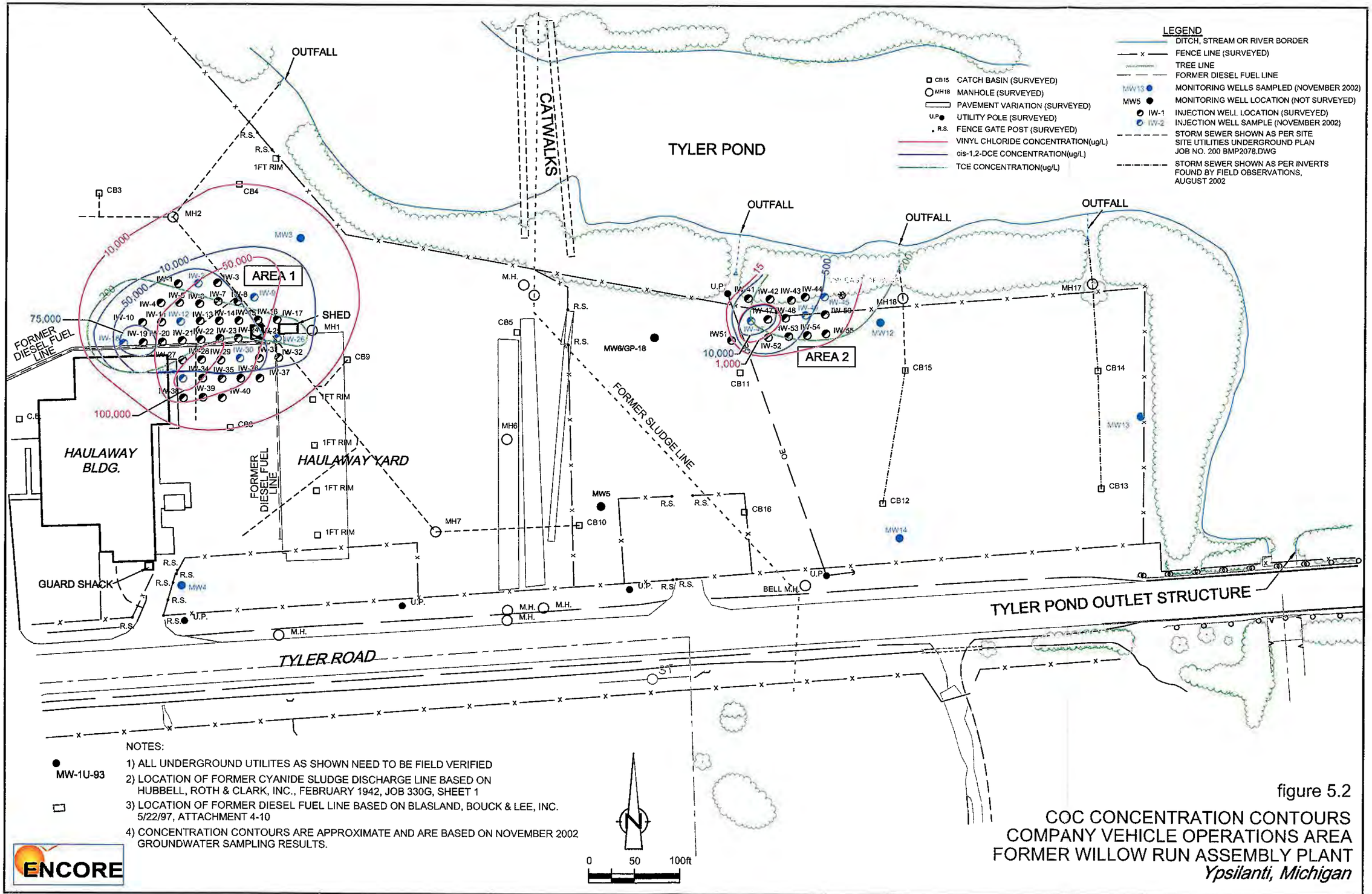


figure 5.2

COC CONCENTRATION CONTOURS
COMPANY VEHICLE OPERATIONS AREA
FORMER WILLOW RUN ASSEMBLY PLANT
Ypsilanti, Michigan

17303-03(002)GN-DE002 MAY 16/2003

TABLE 3.1

DECEMBER 2001 $KMnO_4$ INJECTION SUMMARY
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well	Date of Injection	Sequence Number	KMnO4 Injection Time (min)	KMnO4 Volume Injected (gallons)	KMnO4 Injection Flow Rate (gpm)	Water Injection Time (min)	Water Volume Injected (gallons)	Water Injection Flow Rate (gpm)	Water Injection Comments
IW- 1	12/27/2001	44	55	250	4.5	25	250	10.0	
IW- 2	12/27/2001	40	20	250	12.5	27	250	9.3	
IW- 3	12/27/2001	41	11	250	22.7	15	250	16.7	
IW- 4	12/17/2001	7	14	250	17.9	23	250	10.9	
IW- 5	12/27/2001	43	17	250	14.7	33	250	7.6	
IW- 6	12/27/2001	42	16	250	15.6	13	250	19.2	
IW- 7	12/17/2001	2	5	250	50.0	25	250	10.0	
IW- 8	12/20/2001	28	20	700	35.0	33	250	7.6	
IW- 9	12/27/2001	36	7	250	35.7	7	250	35.7	
IW- 10	12/18/2001	10	33	250	7.6	51	250	4.9	
IW- 11	12/17/2001	8	20	250	12.5	28	250	8.9	
IW- 12	12/20/2001	33	25	250	10.0	30	250	8.3	
IW- 13	12/17/2001	3	25	250	10.0	31	250	8.1	
IW- 14	12/17/2001	1	3	250	83.3	5	250	50.0	
IW- 15	12/20/2001	29	6	250	41.7	7	250	35.7	
IW- 16	12/27/2001	34	5	250	50.0	4	250	62.5	
IW- 17	12/27/2001	35	7	250	35.7	10	250	25.0	
IW- 18	12/18/2001	12	60	250	4.2	65	250	3.8	
IW- 19	12/18/2001	11	190	250	1.3	100	250	2.5	
IW- 20	12/17/2001	9	30	250	8.3	134	250	1.9	
IW- 21	12/20/2001	32	35	250	7.1	37	250	6.8	
IW- 22	12/17/2001	4	25	250	10.0	50	250	5.0	
IW- 23	12/20/2001	31	10	250	25.0	10	250	25.0	
IW- 24	12/20/2001	30	7	250	35.7	10	250	25.0	
IW- 25	12/27/2001	37	19	250	13.2	15	250	16.7	
IW- 26	12/31/2001	55	12	250	20.8	30	250	8.3	
IW- 27	12/28/2001	46	42	250	6.0	90	250	2.8	
IW- 28	12/17/2001	5	10	250	25.0	25	250	10.0	
IW- 29	12/27/2001	45	25	250	10.0	20	250	12.5	
IW- 30	12/27/2001	38	53	250	4.7	40	250	6.3	
IW- 31	12/27/2001	39	20	250	12.5	20	250	12.5	
IW- 32	12/31/2001	54	28	250	8.9	25	250	10.0	
IW- 33	12/28/2001	47	35	250	7.1	40	250	6.3	
IW- 34	12/17/2001	6	35	250	7.1	25	250	10.0	
IW- 35	12/28/2001	50	25	250	10.0	50	250	5.0	
IW- 36	12/31/2001	52	38	250	6.6	55	250	4.5	
IW- 37	12/31/2001	53	22	250	11.4	28	250	8.9	
IW- 38	12/28/2001	48	10	250	25.0	20	250	12.5	
IW- 39	12/28/2001	49	40	250	6.3	68	250	3.7	
IW- 40	12/28/2001	51	43	250	5.8	32	250	7.8	
IW- 41	12/19/2001	19	130	250	1.9	75	250	3.3	See note 1
IW- 42	12/19/2001	20	125	250	2.0	93	250	2.7	See note 1
IW- 43	12/19/2001	21	125	250	2.0	100	250	2.5	See note 1
IW- 44	12/19/2001	22	155	250	1.6	105	250	2.4	See note 1
IW- 45	12/19/2001	23	125	250	2.0	85	250	2.9	See note 1
IW- 46	12/18/2001	16	25	250	10.0	25	250	10.0	
IW- 47	12/18/2001	14	23	250	10.9	27	250	9.3	
IW- 48	12/18/2001	17	55	250	4.5	75	250	3.3	
IW- 49	12/19/2001	24	45	250	5.6	35	250	7.1	
IW- 50	12/19/2001	27	40	250	6.3	15	250	16.7	
IW- 51	12/18/2001	13	27	250	9.3	35	250	7.1	
IW- 52	12/18/2001	15	25	250	10.0	25	250	10.0	
IW- 53	12/18/2001	18	25	250	10.0	25	250	10.0	
IW- 54	12/19/2001	25	38	250	6.6	35	250	7.1	
IW- 55	12/19/2001	26	50	250	5.0	100	250	2.5	
Totals/averages:			1611	14200	8.8	1858	13750	7.4	See note 2

Combined totals/averages:

Total volume Injected:	27950 gallons
Total Time of Injecting:	3469 minutes
Average Injection Rate:	8.1 gpm

Notes:
1) Injection to Wells 41, 42, 43, 44 and 45 was conducted simultaneously. Injection flow rate is based on worst case injection time of the five since this is the limiting factor for these five injections.
2)Takes into account that wells 41 through 45 occurred simulateously. Therefore, 1250 gallons of KMnO4 were injected over a period of 155 minutes (8.1gpm), of 155 minutes (8.1) and 1250 gallons of water were injected over a period of 105 minutes (11.9 gpm).

TABLE 3.2

FEBRUARY 2002 $KMnO_4$ INJECTION SUMMARY
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well	Date of Injection	Sequence Number	KMnO4 Injection Time (min)	KMnO4 Volume Injected (gallons)	KMnO4 Injection Flow Rate (gpm)	Water Injection Time (min)	Water Volume Injected (gallons)	Water Injection Flow Rate (gpm)	Water Injection Comments
IW- 1	02/13/02	22	56.0	250.0	4.5	61.0	250.0	4.1	
IW- 2	02/13/02	21	26.0	250.0	9.6	34.0	250.0	7.4	
IW- 3	02/13/02	20	13.0	250.0	19.2	65.0	250.0	3.8	
IW- 4	02/13/02	24	40.0	250.0	6.3	54.0	250.0	4.6	
IW- 5	02/13/02	23	53.0	250.0	4.7	52.0	250.0	4.8	
IW- 6	02/14/02	25	17.0	250.0	14.7	20.0	250.0	12.5	
IW- 7	02/13/02	19	47.0	250.0	5.3	53.0	250.0	4.7	
IW- 8	02/13/02	18	4.0	250.0	62.5	8.0	250.0	31.3	
IW- 9	02/15/02	35	3.0	250.0	83.3	6.0	250.0	41.7	
IW- 10	02/19/02	47	16.0	400.0	25.0	27.0	250.0	9.3	
IW- 11	02/19/02	48	20.0	250.0	12.5	35.0	250.0	7.1	
IW- 12	02/19/02	50	24.0	250.0	10.4	55.0	250.0	4.5	
IW- 13	02/14/02	26	32.0	250.0	7.8	39.0	250.0	6.4	
IW- 14	02/13/02	17	4.0	250.0	62.5	9.0	250.0	27.8	
IW- 15	02/13/02	16	13.0	250.0	19.2	20.0	250.0	12.5	
IW- 16	02/15/02	36	2.0	250.0	125.0	2.0	250.0	125.0	
IW- 17	02/15/02	37	24.0	250.0	10.4	18.0	250.0	13.9	
IW- 18	02/19/02	45	34.0	250.0	7.4	46.0	250.0	5.4	
IW- 19	02/19/02	46	51.0	250.0	4.9	60.0	250.0	4.2	
IW- 20	02/19/02	49	33.0	250.0	7.6	70.0	250.0	3.6	
IW- 21	02/19/02	51	20.0	250.0	12.5	36.0	250.0	6.9	
IW- 22	02/14/02	27	49.0	250.0	5.1	43.0	250.0	5.8	
IW- 23	02/14/02	28	11.0	250.0	22.7	25.0	250.0	10.0	
IW- 24	02/14/02	31	21.0	250.0	11.9	21.0	250.0	11.9	
IW- 25	02/14/02	33	78.0	250.0	3.2	40.0	250.0	6.3	
IW- 26	02/15/02	38	13.0	250.0	19.2	35.0	250.0	7.1	
IW- 27	02/19/02	52	84.0	250.0	3.0	88.0	250.0	2.8	
IW- 28	02/14/02	29	11.0	250.0	22.7	40.0	250.0	6.3	
IW- 29	02/14/02	30	35.0	250.0	7.1	35.0	250.0	7.1	
IW- 30	02/14/02	32	27.0	250.0	9.3	60.0	250.0	4.2	
IW- 31	02/14/02	34	38.0	250.0	6.6	70.0	250.0	3.6	
IW- 32	02/15/02	39	19.0	250.0	13.2	27.0	250.0	9.3	
IW- 33	02/19/02	54	76.0	250.0	3.3	81.0	250.0	3.1	
IW- 34	02/19/02	53	19.0	250.0	13.2	51.0	250.0	4.9	
IW- 35	02/15/02	42	28.0	250.0	8.9	55.0	250.0	4.5	
IW- 36	02/15/02	41	71.0	250.0	3.5	44.0	250.0	5.7	
IW- 37	02/15/02	40	44.0	250.0	5.7	28.0	250.0	8.9	
IW- 38	02/19/02	55	19.0	250.0	13.2	36.0	250.0	6.9	
IW- 39	02/15/02	44	75.0	250.0	3.3	57.0	250.0	4.4	
IW- 40	02/15/02	43	78.0	250.0	3.2	78.0	250.0	3.2	
IW- 41	02/12/02	12	17.0	250.0	14.7	73.0	250.0	3.4	
IW- 42	02/12/02	11	83.0	250.0	3.0	125.0	250.0	2.0	
IW- 43	02/12/02	13	23.0	250.0	10.9	53.0	250.0	4.7	
IW- 44	02/12/02	14	149.0	250.0	1.7	80.0	250.0	3.1	
IW- 45	02/12/02	15	62.0	250.0	4.0	30.0	250.0	8.3	
IW- 46	02/11/02	2	20.0	250.0	12.5	40.0	250.0	6.3	
IW- 47	02/11/02	4	33.0	250.0	7.6	20.0	250.0	12.5	
IW- 48	02/12/02	10	26.0	250.0	9.6	83.0	250.0	3.0	
IW- 49	02/12/02	9	34.0	250.0	7.4	57.0	250.0	4.4	
IW- 50	2/11-2/12/02	8	38.0	250.0	6.6	47.0	250.0	5.3	
IW- 51	02/11/02	1	41.0	250.0	6.1	23.0	250.0	10.9	
IW- 52	02/11/02	3	31.0	250.0	8.1	49.0	250.0	5.1	
IW- 53	02/11/02	5	33.0	250.0	7.6	46.0	250.0	5.4	
IW- 54	02/11/02	6	29.0	250.0	8.6	60.0	250.0	4.2	
IW- 55	02/11/02	7	76.0	250.0	3.3	60.0	250.0	4.2	
Totals/averages:			2023.0	13900.0	6.9	2530.0	13750.0	5.4	

Combined totals/averages:

Total volume Injected: 27650 gallons
Total Time of Injecting: 4553 minutes
Average Injection Rate: 6.1 gpm

TABLE 3.3

APRIL 2002 $KMnO_4$ INJECTION SUMMARY
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well	Date of Injection	Sequence Number	KMnO4 Injection Time (min)	KMnO4 Volume Injected (gallons)	KMnO4 Injection Flow Rate (gpm)	Water Injection Time (min)	Water Volume Injected (gallons)	Water Injection Flow Rate (gpm)	Water Injection Comments
IW- 1	04/19/02	41	38.0	250.0	6.6	36.0	250.0	6.9	
IW- 2	04/19/02	42	22.0	250.0	11.4	22.0	250.0	11.4	
IW- 3	04/19/02	47	13.0	250.0	19.2	19.0	250.0	13.2	
IW- 4	04/19/02	40	47.0	250.0	5.3	87.0	250.0	2.9	Small Tank/Small Hose
IW- 5	04/19/02	43	61.0	250.0	4.1	77.0	250.0	3.2	
IW- 6	04/19/02	44	30.0	250.0	8.3	40.0	250.0	6.3	
IW- 7	04/19/02	46	40.0	250.0	6.3	34.0	250.0	7.4	
IW- 8	04/22/02	49	6.0	250.0	41.7	8.0	250.0	31.3	
IW- 9	04/22/02	50	8.0	250.0	31.3	12.0	250.0	20.8	
IW- 10	04/18/02	35	11.0	250.0	22.7	20.0	250.0	12.5	
IW- 11	04/18/02	36	29.0	250.0	8.6	30.0	250.0	8.3	
IW- 12	04/19/02	39	52.0	250.0	4.8	42.0	250.0	6.0	
IW- 13	04/19/02	45	56.0	250.0	4.5	105.0	250.0	2.4	Small Tank/Small Hose
IW- 14	04/19/02	48	6.0	250.0	41.7	13.0	250.0	19.2	
IW- 15	04/22/02	51	14.0	250.0	17.9	15.0	250.0	16.7	
IW- 16	04/22/02	55	3.0	250.0	83.3	4.0	250.0	62.5	
IW- 17	04/22/02	54	27.0	250.0	9.3	26.0	250.0	9.6	
IW- 18	04/18/02	33	61.0	250.0	4.1	71.0	250.0	3.5	
IW- 19	04/18/02	34	59.0	250.0	4.2	119.0	250.0	2.1	Small Tank/Small Hose
IW- 20	4/18-4/19/02	37	96.0	250.0	2.6	156.0	250.0	1.6	Small Tank/Small Hose
IW- 21	04/19/02	38	36.0	250.0	6.9	40.0	250.0	6.3	
IW- 22	04/17/02	27	62.0	250.0	4.0	71.0	250.0	3.5	
IW- 23	04/22/02	52	21.0	250.0	11.9	24.0	250.0	10.4	
IW- 24	04/22/02	53	26.0	250.0	9.6	27.0	250.0	9.3	
IW- 25	4/16-4/17/02	18	26.0	250.0	9.6	65.0	250.0	3.8	Small Tank/Small Hose
IW- 26	04/16/02	17	47.0	250.0	5.3	37.0	250.0	6.8	
IW- 27	04/17/02	28	70.0	250.0	3.6	77.0	250.0	3.2	
IW- 28	04/17/02	26	20.0	250.0	12.5	23.0	250.0	10.9	
IW- 29	04/17/02	23	38.0	250.0	6.6	60.0	250.0	4.2	
IW- 30	04/17/02	21	32.0	250.0	7.8	32.0	250.0	7.8	
IW- 31	04/17/02	19	23.0	250.0	10.9	49.0	250.0	5.1	
IW- 32	04/16/02	16	32.0	250.0	7.8	42.0	250.0	6.0	
IW- 33	04/18/02	30	59.0	250.0	4.2	136.0	250.0	1.8	Small Tank/Small Hose
IW- 34	04/18/02	29	10.0	250.0	25.0	22.0	250.0	11.4	
IW- 35	04/17/02	24	31.0	250.0	8.1	35.0	250.0	7.1	
IW- 36	04/17/02	22	51.0	250.0	4.9	54.0	250.0	4.6	
IW- 37	04/17/02	20	31.0	250.0	8.1	42.0	250.0	6.0	
IW- 38	04/18/02	31	25.0	250.0	10.0	28.0	250.0	8.9	
IW- 39	04/18/02	32	74.0	250.0	3.4	117.0	250.0	2.1	100gal big tank/150gal small tank
IW- 40	04/17/02	25	61.0	250.0	4.1	138.0	250.0	1.8	Small Tank/Small Hose
IW- 41	04/15/02	3	14.0	250.0	17.9	100.0	250.0	2.5	
IW- 42	04/15/02	4	77.0	250.0	3.2	41.0	250.0	6.1	
IW- 43	04/16/02	13	54.0	250.0	4.6	33.0	250.0	7.6	
IW- 44	04/16/02	12	85.0	250.0	2.9	71.0	250.0	3.5	
IW- 45	04/16/02	11	27.0	250.0	9.3	55.0	250.0	4.5	
IW- 46	04/15/02	2	22.0	250.0	11.4	24.0	250.0	10.4	
IW- 47	04/15/02	6	9.0	250.0	27.8	17.0	250.0	14.7	
IW- 48	04/15/02	8	111.0	250.0	2.3	86.0	250.0	2.9	
IW- 49	04/16/02	10	44.0	250.0	5.7	51.0	250.0	4.9	
IW- 50	04/16/02	14	46.0	250.0	5.4	44.0	250.0	5.7	
IW- 51	04/15/02	1	44.0	250.0	5.7	27.0	250.0	9.3	
IW- 52	04/15/02	5	37.0	250.0	6.8	40.0	250.0	6.3	
IW- 53	04/15/02	7	56.0	250.0	4.5	72.0	250.0	3.5	
IW- 54	4/15-4/16/02	9	75.0	250.0	3.3	86.0	250.0	2.9	
IW- 55	04/16/02	15	107.0	250.0	2.3	122.0	250.0	2.0	Small Tank/Small Hose
Totals/averages:			2262.0	13750.0	6.1	2924.0	13750.0	4.7	

Combined totals/averages:

Total volume Injected: 27500 gallons
Total Time of Injecting: 5186 minutes
Average Injection Rate: 5.3 gpm

Note: Small Tank is equivalent to 425 gallon capacity;
Big Tank is equivalent to 1500 gallon capacity;
Small Hose is equivalent to 1 inch diameter (big hose is equivalent to 2 inch diameter).

TABLE 3.4

JUNE 2002 $KMnO_4$ INJECTION SUMMARY
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well	Date of Injection	Sequence Number	KMnO4 Injection Time (min)	KMnO4 Volume Injected (gallons)	KMnO4 Injection Flow Rate (gpm)	Water Injection Time (min)	Water Volume Injected (gallons)	Water Injection Flow Rate (gpm)	Water Injection Comments
IW- 1	06/21/02	44	85.0	250.0	2.9	56.0	250.0	4.5	
IW- 2	06/21/02	45	34.0	250.0	7.4	38.0	250.0	6.6	
IW- 3	06/21/02	47	12.0	250.0	20.8	17.0	250.0	14.7	
IW- 4	06/21/02	41	30.0	250.0	8.3	44.0	250.0	5.7	
IW- 5	06/21/02	43	50.0	250.0	5.0	87.0	250.0	2.9	
IW- 6	06/21/02	46	46.0	250.0	5.4	35.0	250.0	7.1	
IW- 7	06/21/02	48	32.0	250.0	7.8	43.0	250.0	5.8	
IW- 8	06/24/02	52	12.0	250.0	20.8	19.0	250.0	13.2	
IW- 9	06/24/02	53	11.0	250.0	22.7	0.0	0.0	0.0	No Water Flush (sampling well)
IW- 10	06/21/02	39	13.0	250.0	19.2	29.0	250.0	8.6	
IW- 11	06/21/02	40	29.0	250.0	8.6	35.0	250.0	7.1	
IW- 12	06/21/02	42	28.0	250.0	8.9	0.0	0.0	0.0	No Water Flush (sampling well)
IW- 13	06/24/02	49	30.0	250.0	8.3	25.0	250.0	10.0	
IW- 14	06/24/02	50	5.0	250.0	50.0	4.0	250.0	62.5	
IW- 15	06/24/02	51	29.0	250.0	8.6	15.0	250.0	16.7	
IW- 16	06/24/02	55	3.0	250.0	83.3	5.0	250.0	50.0	
IW- 17	06/24/02	54	22.0	250.0	11.4	33.0	250.0	7.6	
IW- 18	6/20-6/21/02	38	68.0	250.0	3.7	42.0	250.0	6.0	
IW- 19	06/20/02	37	59.0	250.0	4.2	73.0	250.0	3.4	
IW- 20	06/20/02	36	74.0	250.0	3.4	118.0	250.0	2.1	
IW- 21	06/20/02	34	35.0	250.0	7.1	44.0	250.0	5.7	
IW- 22	06/20/02	33	67.0	250.0	3.7	38.0	250.0	6.6	
IW- 23	06/20/02	30	18.0	250.0	13.9	34.0	250.0	7.4	
IW- 24	06/20/02	29	5.0	250.0	50.0	16.0	250.0	15.6	
IW- 25	6/18-6/19/02	18	40.0	250.0	6.3	68.0	250.0	3.7	
IW- 26	06/18/02	17	26.0	250.0	9.6	59.0	250.0	4.2	
IW- 27	06/20/02	35	111.0	250.0	2.3	96.0	250.0	2.6	
IW- 28	06/20/02	32	24.0	250.0	10.4	42.0	250.0	6.0	
IW- 29	06/20/02	31	51.0	250.0	4.9	39.0	250.0	6.4	
IW- 30	6/19-6/20/02	28	54.0	250.0	4.6	11.0	250.0	22.7	
IW- 31	06/19/02	27	51.0	250.0	4.9	68.0	250.0	3.7	
IW- 32	06/18/02	16	28.0	250.0	8.9	62.0	250.0	4.0	
IW- 33	06/19/02	19	41.0	250.0	6.1	0.0	0.0	0.0	No Water Flush (sampling well)
IW- 34	06/19/02	22	22.0	250.0	11.4	20.0	250.0	12.5	
IW- 35	06/19/02	23	38.0	250.0	6.6	46.0	250.0	5.4	
IW- 36	06/19/02	26	40.0	250.0	6.3	53.0	250.0	4.7	
IW- 37	06/19/02	25	27.0	250.0	9.3	40.0	250.0	6.3	
IW- 38	06/19/02	20	18.0	250.0	13.9	11.0	250.0	22.7	
IW- 39	06/19/02	21	77.0	250.0	3.2	61.0	250.0	4.1	
IW- 40	06/19/02	24	117.0	250.0	2.1	109.0	250.0	2.3	
IW- 41	06/18/02	15	64.0	250.0	3.9	49.0	250.0	5.1	
IW- 42	06/18/02	14	37.0	250.0	6.8	38.0	250.0	6.6	
IW- 43	06/18/02	13	30.0	250.0	8.3	34.0	250.0	7.4	
IW- 44	06/18/02	12	81.0	250.0	3.1	66.0	250.0	3.8	
IW- 45	06/18/02	11	25.0	250.0	10.0	53.0	250.0	4.7	
IW- 46	06/17/02	2	25.0	250.0	10.0	0.0	0.0	0.0	No Water Flush (sampling well)
IW- 47	06/17/02	4	26.0	400.0	15.4	30.0	250.0	8.3	
IW- 48	06/17/02	6	93.0	250.0	2.7	122.0	250.0	2.0	
IW- 49	06/17/02	9	40.0	250.0	6.3	0.0	0.0	0.0	No Water Flush (sampling well)
IW- 50	06/17/02	8	61.0	250.0	4.1	50.0	250.0	5.0	
IW- 51	06/17/02	1	32.0	250.0	7.8	42.0	250.0	6.0	
IW- 52	06/17/02	3	47.0	250.0	5.3	60.0	250.0	4.2	
IW- 53	06/17/02	5	63.0	250.0	4.0	60.0	250.0	4.2	
IW- 54	06/17/02	7	47.0	250.0	5.3	72.0	250.0	3.5	
IW- 55	06/18/02	10	84.0	250.0	3.0	56.0	250.0	4.5	
Totals/averages:			2317.0	13900.0	6.0	2367.0	12500.0	5.3	

Combined totals/averages:

Total volume Injected: 26400 gallons
Total Time of Injecting: 4684 minutes
Average Injection Rate: 5.6 gpm

TABLE 5.1

GROUNDWATER LEVEL DATA
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Well ID	Screen Length	Depth to Water						Change in Water Level from Previous Reading				
		12/12/2001 *Baseline*	1/3/2002 *After Injection 1*	2/22/2002 *After Injection 2*	4/26/2002 *After Injection 3*	7/2/2002 *After Injection 4*	11/25/02 *Follow Up*	1/3/2002 *After Injection 1*	2/22/2002 *After Injection 2*	4/26/2002 *After Injection 3*	7/2/2002 *After Injection 4*	11/25/02 *Follow Up*
								(Positive value = rising water level)				
	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
INJECTION AREA 1:												
IW-1	10	10.99	10.94	10.58	10.28	10.51		0.05	0.36	0.30	-0.23	
IW-2	5	10.96	10.56	10.20	9.94	10.17	11.57	0.40	0.36	0.26	-0.23	-1.40
IW-3	10	10.33	10.27	9.90	9.66	9.96		0.06	0.37	0.24	-0.30	
IW-4	10	11.09	11.05	10.66	10.38	11.62		0.04	0.39	0.28	-1.24	
IW-5	5	10.93	10.84	10.48	10.23	10.47		0.09	0.36	0.25	-0.24	
IW-6	10	10.50	10.42	10.05	9.81	10.06		0.08	0.37	0.24	-0.25	
IW-7	5	10.40	10.32	9.96	9.73	9.97		0.08	0.36	0.23	-0.24	
IW-8	10	10.27	10.14	9.78	9.56	9.80	11.18	0.13	0.36	0.22	-0.24	-1.38
IW-9	5	10.10	10.00	9.64	9.43	9.66	11.05	0.10	0.36	0.21	-0.23	-1.39
IW-10	10	10.93	10.90	10.48	10.23	10.47		0.03	0.42	0.25	-0.24	
IW-11	5	10.99	10.93	10.52	10.30	10.54		0.06	0.41	0.22	-0.24	
IW-12	10	10.76	10.60	10.20	9.99	10.23	11.62	0.16	0.40	0.21	-0.24	-1.39
IW-13	5	10.70	10.58	10.19	9.99	10.24		0.12	0.39	0.20	-0.25	
IW-14	10	10.33	10.24	9.86	9.66	9.91		0.09	0.38	0.20	-0.25	
IW-15	5	10.27	10.17	9.81	9.62	9.84		0.10	0.36	0.19	-0.22	
IW-16	10	10.27	10.20	9.98	9.88	9.92	12.03*	0.07	0.22	0.10	-0.04	-2.11*
IW-17	5	10.01	9.94	9.58	9.36	9.63	11.9	0.07	0.36	0.22	-0.27	-2.27
IW-18	10	10.96	10.96	10.61	10.32	10.57	11.9	0.00	0.35	0.29	-0.25	-1.33
IW-19	5	11.38	11.29	10.91	10.64	10.92		0.09	0.38	0.27	-0.28	
IW-20	10	11.02	10.97	10.57	10.34	10.59		0.05	0.40	0.23	-0.25	
IW-21	5	10.99	10.92	10.53	10.32	10.57		0.07	0.39	0.21	-0.25	
IW-22	10	10.60	10.53	10.15	9.93	10.21		0.07	0.38	0.22	-0.28	
IW-23	5	10.60	10.50	10.13	9.92	10.17		0.10	0.37	0.21	-0.25	
IW-24	10	10.33	10.23	9.88	9.67	9.93		0.10	0.35	0.21	-0.26	
IW-25	5	10.07	9.98	9.65	9.43	9.70	10.82	0.09	0.33	0.22	-0.27	-1.12
IW-26	10	9.97	9.90	9.56	9.32	9.61	11.4*	0.07	0.34	0.24	-0.29	-1.79*
IW-27	10	11.15	11.08	10.72	10.48	10.75		0.07	0.36	0.24	-0.27	
IW-28	5	10.89	10.81	10.46	10.24	10.50		0.08	0.35	0.22	-0.26	
IW-29	10	10.24	10.13	9.78	9.55	9.82		0.11	0.35	0.23	-0.27	
IW-30	5	10.24	10.15	9.82	9.59	9.86	11.2	0.09	0.33	0.23	-0.27	-1.34
IW-31	10	9.94	9.84	9.51	9.27	9.56		0.10	0.33	0.24	-0.29	
IW-32	5	10.10	10.03	9.69	9.43	9.77	11.01	0.07	0.34	0.26	-0.34	-1.24
IW-33	5	11.19	11.13	10.79	10.51	10.83	12.13	0.06	0.34	0.28	-0.32	-1.30
IW-34	10	10.73	10.69	10.31	10.05	10.34		0.04	0.38	0.26	-0.29	
IW-35	5	10.37	10.22	9.90	9.63	9.93		0.15	0.32	0.27	-0.30	
IW-36	10	10.24	10.13	9.82	9.54	9.86		0.11	0.31	0.28	-0.32	
IW-37	5	10.17	10.08	9.77	9.49	9.83		0.09	0.31	0.28	-0.34	
IW-38	10	11.02	10.92	10.66	10.32	10.66		0.10	0.26	0.34	-0.34	
IW-39	5	10.63	10.56	10.28	9.97	10.29		0.07	0.28	0.31	-0.32	
IW-40	10	10.14	10.05	9.77	9.45	9.80		0.09	0.28	0.32	-0.35	
INJECTION AREA 2:												
IW-41	10	11.52	11.39	10.94	10.80	11.62		0.13	0.45	0.14	-0.82	
IW-42	5	11.88	11.72	11.27	11.07	11.90		0.16	0.45	0.20	-0.83	
IW-43	10	11.78	11.64	11.17	10.92	11.87		0.14	0.47	0.25	-0.95	
IW-44	5	11.29	11.14	10.68	10.47	11.43		0.15	0.46	0.21	-0.96	
IW-45	10	11.48	11.28	10.87	10.62	11.65	12.2	0.20	0.41	0.25	-1.03	-0.55
IW-46	5	11.88	11.75	11.31	11.04	11.83	12.7	0.13	0.44	0.27	-0.79	-0.87
IW-47	10	11.58	11.43	10.98	10.69	11.50		0.15	0.45	0.29	-0.81	
IW-48	5	11.91	11.76	11.32	11.00	11.86		0.15	0.44	0.32	-0.86	
IW-49	10	12.50	12.36	11.94	11.60	12.50	13.35	0.14	0.42	0.34	-0.90	-0.85
IW-50	5	12.34	12.19	11.80	11.43	12.37		0.15	0.39	0.37	-0.94	
IW-51	10	10.86	10.78	10.33	10.02	10.75		0.08	0.45	0.31	-0.73	
IW-52	5	11.58	11.42	10.98	10.65	11.43		0.16	0.44	0.33	-0.78	
IW-53	10	11.65	11.50	11.06	10.71	11.54		0.15	0.44	0.35	-0.83	
IW-54	5	11.94	11.79	11.38	10.99	11.85		0.15	0.41	0.39	-0.86	
IW-55	10	11.91	11.76	11.37	10.95	11.85		0.15	0.39	0.42	-0.90	
OTHER AREAS:												
MW-3	--	--	--	--	--	--	10.43					
MW-4	--	--	--	--	--	--	12.15					
MW-12	--	--	--	--	--	--	13.2					
MW-13	--	--	--	--	--	--	10.45					
MW-14	--	--	--	--	--	--	12.5					

Notes

* LNAPL present in this well at time of measurement.

TABLE 5.2

GROUNDWATER ANALYTICAL RESULTS
12/2001 THROUGH 11/2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well Identification:	IW-9						
Injection Area (1=West, 2 =East)	Area 1						
Groundwater Sample Date:	12/13/01 Baseline	01/14/02 After Injection 1	03/14/02 After Injection 2	05/06/02 After Injection 3	07/22/02 After Injection 4	07/22/02 After Injection 4 (duplicate)	11/25/02 Follow up
Groundwater Sample ID:	GW-17303-JH-121301-100	GW-17303-011402-BN-111	GW-17303-031402-TJ-117	GW-17303-050602-MM-123	GW-17303-072202-MM-130	GW-17303-072202-MM-131	GW-17303-112502-MM-144
Analytes							
pH	6.79	7.73	6.91	7.37	7.13	7.13	7.38
DO (mg/l)	0.05	0.32	0.36	0.74	0.156	0.156	0.18
ORP (Mv)	-67.6	66	11	149	263.4	263.4	-112
Specific Conductivity (Ms/cm)	2.860	4.35	3.48	3.72	3.272	3.272	4.63
Turbidity (NTU)	0.6	2.72	1.31	2.66	~50	~50	3.5
Temp. (C)	13.8	11.34	10.47	12.26	18.212	18.212	13.04
Chloride (mg/l)	668	854	698	677	478	496	946
KMnO4 (mg/l)		ND(5)	ND(5)	ND(5)	ND(5)		na
Manganese (mg/l)	0.375	4.92	20	6.51	2.2	2.04	na
Potassium (mg/l)	8.13	591	77.3	619	89	86	na
Aerobic Total Microbial Population (CFUs/ml)		3.0E+04		3.3E+04	9.60E+03		
Aerobic Total Microbial Population (CFUs/ml)-dup		2.80E+04					
Anerobic Total Microbial Population (CFUs/ml)		1.10E+04		5.10E+03	9.60E+02		
Anerobic Total Microbial Population (CFUs/ml)-dup.		1.10E+04					
VOCs (ug/l): (MDEQ GSI Criteria shown in [brackets])							
1,1,2-Trichloroethane - [330(X)]	1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,1-Dichloroethane - [740]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,1-Dichloroethene - [65(X)]	15	12	12	4	12	11	28
1,2,3-Trichloropropane	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2,4-Trimethylbenzene - [17]	5	11	9	2	5	4	10
1,2-Dichloroethane - [360(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2-Dichloropropane - [290(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,3,5-Trimethylbenzene - [ID]	2	4	3	ND(1)	2	ND(1)	4
2-Butanone (MEK) -[2,200]	640(J)	160	ND(50)	ND(50)	ND(50)	ND(50)	ND (25)
Acetone - [1,700]	ND(1)	130	160	ND(100)	ND(100)	ND(100)	ND (25)
Benzene- [200]	20	34	41	15	37	38	43
Bromodichloromethane - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND (1.0)
Carbon disulfide - [ID]	ND(5)	5	18	6	6	7	ND (5)
Chloroform - [170]	ND(1)	1	2	2	1	2	ND (1.0)
Ethylbenzene - [18]	71	ND(1)	150	40	110	120	30
Isopropylbenzene - [ID]	23	26	28	10	ND(1)	25	38
Methylene Chloride -[940]	5	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
n-Propylbenzene - [30]	1	1	1	ND(1)	ND(1)	ND(1)	ND (5)
Naphthalene - [13]	45	75	50	9	33	33	ND (5)
Toluene - [140]	380	2,100	1,100	220	900	1,100	1,200
Trichloroethene- [200]	450	170	160	150	51	54	14
Vinyl chloride -[15]	31,000	1,800	42,000	4,000	36,000	39,000	73,000
cis-1,2-Dichloroethene -[620]	16,000	2,100	24,000	4,800	20,000	20,000	29,000
trans-1,2-Dichloroethene - [1,500]	460	670	1,000	180	810	860	860 J
Xylenes (total) - [35]	268	570	ND(6000)	167	500	520	ND (3,000)
Water Level Data							
Depth to Water (feet below top of riser)	10.10	10.23	9.51	9.49	9.86	9.86	11.05
NOTES:					burgundy, then clear w/ Susp. Solids	burgundy, then clear w/ Susp. Solids	

MDEQ Part 201 GSI Criteria exists for compound
Meets MDEQ GSI Criteria
Does not meet MDEQ GSI Criteria
CFU = Colony Forming Unit
ND(x)=Not detected at or above concentration x
(J)=Estimated value
[ID] = Inadequate data to develop MDEQ criteria
na = not analyzed
{X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source.

TABLE 5.2

GROUNDWATER ANALYTICAL RESULTS
12/2001 THROUGH 11/2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well Identification:	IW-12					
Injection Area (1=West, 2 =East)	Area 1					
Groundwater Sample Date:	12/13/01 Baseline	01/14/02 After Injection 1	03/14/02 After Injection 2	05/06/02 After Injection 3	07/22/02 After Injection 4	11/25/02 Follow up
Groundwater Sample ID:	GW-17303-JH-121301-101	GW-17303-011402-BN-112	GW-17303-031402-TJ-118	GW-17303-050602-MM-124	GW-17303-072202-MM-132	GW-17303-112502-MM-145
Analytes						
pH	6.56	7.92	7.53	7.72	7.16	6.8
DO (mg/l)	0.08	0.17	0.19	0.26	0.074	0.17
ORP (Mv)	-76.8	58	-57	549	127.4	110
Specific Conductivity (Ms/cm)	3.067	4.53	4.35	4.5	4.054	3.72
Turbidity (NTU)	1.71	4.40	3.58	'9.99'	~10-15	2
Temp. (C)	15.0	12.14	11.59	12.4	19.624	14.09
Chloride (mg/l)	637	478	297	174	496	753
KMnO4 (mg/l)		ND(5)	ND(5)	610	ND(5)	na
Manganese (mg/l)	0.63	4.74	8.43	160	2	na
Potassium (mg/l)	18.6	1100	1110	1340	421	na
Aerobic Total Microbial Population (CFUs/ml)		2.90E+04		9.6E+02	8.00E+03	
Aerobic Total Microbial Population (CFUs/ml)-dup		2.90E+04				
Anerobic Total Microbial Population (CFUs/ml)		8.90E+04		no growth	8.40E+02	
Anerobic Total Microbial Population (CFUs/ml)-dup.		8.00E+04				
VOCs (ug/l):						
(MDEQ GSI Criteria shown in [brackets])						
1,1,2-Trichloroethane - [330(X)]	6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,1-Dichloroethane - [740]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,1-Dichloroethene - [65(X)]	170	11	1	ND(1)	59	220
1,2,3-Trichloropropane	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2,4-Trimethylbenzene - [17]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2-Dichloroethane - [360(X)]	2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2-Dichloropropane - [290(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,3,5-Trimethylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
2-Butanone (MEK) -[2,200]	230	110	70	99	ND(50)	ND (25)
Acetone - [1,700]	ND(1)	340	280	2,600	ND(100)	ND (25)
Benzene- [200]	100	53	42	88	85	160
Bromodichloromethane - [ID]	ND(1)	ND(1)	ND(1)	1	2	ND(1)
Carbon disulfide - [ID]	ND(5)	8	7	ND(5)	6	5
Chloroform - [170]	ND(1)	3	4	4	5	ND(1)
Ethylbenzene - [18]	15	6	5	ND(1)	11	7
Isopropylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND (5)
Methylene Chloride -[940]	5	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
n-Propylbenzene - [30]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND (5)
Naphthalene - [13]	ND(5)	7	6	ND(5)	ND(5)	ND (5)
Toluene - [140]	260	160	130	170	200	480
Trichloroethene- [200]	8	ND(1)	ND(1)	ND(1)	ND(1)	780
Vinyl chloride -[15]	39,000	2,200	210	ND(1)	14,000	74,000
cis-1,2-Dichloroethene -[620]	64,000	5,000	1,100	ND(1)	16,000	60,000
trans-1,2-Dichloroethene - [1,500]	760	260	100	ND(1)	950	2,200
Xylenes (total) - [35]	39	17	10	ND(3)	39	100
Water Level Data						
Depth to Water (feet below top of riser)	10.76	10.83	10.11	10.03 bright purple water	10.5	11.62
NOTES:						

MDEQ Part 201 GSI Criteria exists for compound
Meets MDEQ GSI Criteria
Does not meet MDEQ GSI Criteria
CFU = Colony Forming Unit
ND(x)=Not detected at or above concentration x
(J)=Estimated value
[ID] = Inadequate data to develop MDEQ criteria
na = not analyzed
{X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source.

TABLE 5.2

GROUNDWATER ANALYTICAL RESULTS
12/2001 THROUGH 11/2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well Identification:	IW-33						
Injection Area (1=West, 2 =East)	Area 1						
Groundwater Sample Date:	12/13/01 Baseline	01/14/02 After Injection 1	03/14/02 After Injection 2	05/06/02 After Injection 3	05/06/02 After Injection 3 (duplicate)	07/22/02 After Injection 4	11/26/02 Follow up
Groundwater Sample ID:	GW-17303-JH-121301-102	GW-17303-011402-BN-113	GW-17303-031402-TJ-119	GW-17303-050602-MM-125	GW-17303-050602-MM-126	GW-17303-072202-MM-133	GW-17303-112602-MM-153
Analytes							
pH	6.36	8.19	7.37	7.37	7.37	7.136	6.66
DO (mg/l)	0.07	0.32	1.38	0.2	0.2	0.266	0.17
ORP (Mv)	-178.8	54	499	615	615	149.6	100
Specific Conductivity (Ms/cm)	4.860	4.89	4.36	3.59	3.59	9.516	6.99
Turbidity (NTU)	2.63	3.14	165.2	9.99	'9.99'	~15	1.4
Temp. (C)	15.1	12.48	11.28	13.74	13.74	18.92	16.14
Chloride (mg/l)	1360	812	689	521	521	513	2,010
KMnO4 (mg/l)		ND(5)	ND(5)	230		222	na
Manganese (mg/l)	1.07	3.66	21	20.6	24.2	68	na
Potassium (mg/l)	20.7	1020	926	826	857	257	na
Aerobic Total Microbial Population (CFUs/ml)		3.00E+04		1.2E+03		no growth	
Aerobic Total Microbial Population (CFUs/ml)-dup		2.80E+04					
Anerobic Total Microbial Population (CFUs/ml)		8.00E+04		no growth		no growth	
Anerobic Total Microbial Population (CFUs/ml)-dup.		8.60E+04					
VOCs (ug/l):							
(MDEQ GSI Criteria shown in [brackets])							
1,1,2-Trichloroethane - [330(X)]	34	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3
1,1-Dichloroethane - [740]	3	1	1	1	ND(1)	ND(1)	2
1,1-Dichloroethene - [65(X)]	31	12	ND(1)	ND(1)	ND(1)	ND(1)	33
1,2,3-Trichloropropane	3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2,4-Trimethylbenzene - [17]	2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3
1,2-Dichloroethane - [360(X)]	9	1	1	1	1	9	4
1,2-Dichloropropane - [290(X)]	6	ND(1)	2	1	2	ND(1)	ND(1)
1,3,5-Trimethylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
2-Butanone (MEK) -[2,200]	ND(50)	110	ND(50)	ND(50)	ND(50)	ND(50)	ND (25)
Acetone - [1,700]	260	490	240	400	380	820	ND (25)
Benzene- [200]	180	80	68	58	62	8	180
Bromodichloromethane - [ID]	ND(1)	ND(1)	2	2	2	ND(1)	ND(1)
Carbon disulfide - [ID]	ND(5)	26	17	10	11	ND(5)	ND(5)
Chloroform - [170]	ND(1)	4	5	6	6	4	1
Ethylbenzene - [18]	26	10	1	1	2	ND(1)	ND(1)
Isopropylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Methylene Chloride -[940]	8	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
n-Propylbenzene - [30]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Naphthalene - [13]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
Toluene - [140]	170	84	66	48	53	4	210
Trichloroethene- [200]	12	30	12	ND(1)	ND(1)	ND(1)	150
Vinyl chloride -[15]	200,000	14,000	420	ND(1)	ND(1)	ND(1)	100,000
cis-1,2-Dichloroethene -[620]	12,000	2,800	590	ND(1)	ND(1)	ND(1)	7,400
trans-1,2-Dichloroethene - [1,500]	600	210	6	ND(1)	ND(1)	ND(1)	600
Xylenes (total) - [35]	115	63	36	20	21	ND(3)	196
Water Level Data							
Depth to Water (feet below top of riser)	11.19	11.33	10.69	10.55	10.55	11.13	12.13
NOTES:			Purple hue in samples	Dull purple water	Dull purple water	Yellow hue	

MDEQ Part 201 GSI Criteria exists for compound
Meets MDEQ GSI Criteria
Does not meet MDEQ GSI Criteria
CFU = Colony Forming Unit
ND(x)=Not detected at or above concentration x
(J)=Estimated value
[ID] = Inadequate data to develop MDEQ criteria
na = not analyzed
{X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source.

TABLE 5.2

GROUNDWATER ANALYTICAL RESULTS
12/2001 THROUGH 11/2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well Identification:	IW-46							
Injection Area (1=West, 2 =East)	Area 2							
Groundwater Sample Date:	12/14/01 Baseline	01/14/02 After Injection 1	01/14/02 After Injection 1 (duplicate)	03/14/02 After Injection 2	03/14/02 After Injection 2 (duplicate)	05/06/02 After Injection 3	07/22/02 After Injection 4	11/25/02 Follow up
Groundwater Sample ID:	GW-17303-JH-121401-103	GW-17303-011402-BN-114	GW-17303-011402-BN-115	GW-17303-031402-TJ-120	GW-17303-031402-TJ-121	GW-17303-050602-MM-127	GW-17303-072202-MM-134	GW-17303-112502-MM-143
Analytes								
pH	6.82	7.25	7.25	6.94	6.94	7.43	7.186	6.88
DO (mg/l)	0.17	0.30	0.30	0.23	0.23	0.29	0.25	0.13
ORP (Mv)	35.8	52	52	417	417	614	650	218
Specific Conductivity (Ms/cm)	2.301	3	3	2.72	2.72	3.4	3.536	3.97
Turbidity (NTU)	1.5	4.7	4.7	115	115	'9.99'		3.2
Temp. (C)	14.4	12.65	12.65	12.09	12.09	12.6	18.27	14.06
Chloride (mg/l)	405	461	436	431	431	695	299	788
KMnO4 (mg/l)		ND(5)	ND(5)	ND(5)	ND(5)	50	ND(5)	na
Manganese (mg/l)	0.573	5.76	5.47	13.4	15.2	6.64	2.27	na
Potassium (mg/l)	5.54	324	327	154	174	496	256	na
Aerobic Total Microbial Population (CFUs/ml)		1.60E+04	1.70E+04			8.0E+02	9.00E+03	
Aerobic Total Microbial Population (CFUs/ml)-dup		1.60E+04	1.70E+04					
Anerobic Total Microbial Population (CFUs/ml)		6.20E+04	4.30E+04			no growth	8.80E+02	
Anerobic Total Microbial Population (CFUs/ml)-dup.		5.40E+04	5.10E+04					
VOCs (ug/l):								
(MDEQ GSI Criteria shown in [brackets])								
1,1,2-Trichloroethane - [330(X)]	ND(1)	ND(1)	ND(1)	9	8	4	ND(1)	2
1,1-Dichloroethane - [740]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,1-Dichloroethene - [65(X)]	20	2	2	6	6	ND(1)	ND(1)	18
1,2,3-Trichloropropane	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2,4-Trimethylbenzene - [17]	10	6	5	16	ND(1)	ND(1)	ND(1)	1
1,2-Dichloroethane - [360(X)]	16	4	4	16	16	7	ND(1)	12
1,2-Dichloropropane - [290(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,3,5-Trimethylbenzene - [ID]	3	2	2	6	6	ND(1)	ND(1)	ND(1)
2-Butanone (MEK) -[2,200]	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND (25)
Acetone - [1,700]	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	250	ND(100)	ND (25)
Benzene- [200]	20	5	5	22	21	10	1	15
Bromodichloromethane - [ID]	ND(1)	ND(1)	ND(1)	1	1	ND(1)	ND(1)	ND(1)
Carbon disulfide - [ID]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
Chloroform - [170]	5	3	3	16	16	7	4	5
Ethylbenzene - [18]	55	23	21	16	61	34	ND(1)	ND (1)
Isopropylbenzene - [ID]	2	ND(1)	ND(1)	3	3	2	ND(1)	ND (5)
Methylene Chloride -[940]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
n-Propylbenzene - [30]	ND(1)	ND(1)	ND(1)	2	2	1	ND(1)	ND (5)
Naphthalene - [13]	ND(5)	ND(5)	ND(5)	5	6	ND(5)	ND(5)	ND (5)
Toluene - [140]	95	25	25	88	83	44	ND(1)	40
Trichloroethene- [200]	1,200	380	380	350	360	ND(1)	1,700	220
Vinyl chloride -[15]	2,100	1,100	1,200	1,600	1,400	ND(1)	40	2,800
cis-1,2-Dichloroethene -[620]	16,000	1,200	1,400	13,000	11,000	ND(1)	180	13,000
trans-1,2-Dichloroethene - [1,500]	62	50	51	750	660	ND(1)	45	360 J
Xylenes (total) - [35]	350	170	158	440	430	104	ND(3)	49
Water Level Data								
Depth to Water (feet below top of riser)	11.88	11.87	11.87	11.11	11.11	11.15	12.19	12.7
NOTES:				Purple hue in samples	Purple hue in samples	Bright purple water		

MDEQ Part 201 GSI Criteria exists for compound
Meets MDEQ GSI Criteria
Does not meet MDEQ GSI Criteria
CFU = Colony Forming Unit
ND(x)=Not detected at or above concentration x
(J)=Estimated value
[ID] = Inadequate data to develop MDEQ criteria
na = not analyzed
{X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source.

TABLE 5.2

GROUNDWATER ANALYTICAL RESULTS
12/2001 THROUGH 11/2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

Injection Well Identification:	IW-49						
Injection Area (1=West, 2 =East)	Area 2						
Groundwater Sample Date:	12/14/01 Baseline	12/14/01 Baseline (duplicate)	01/14/02 After Injection 1	03/14/02 After Injection 2	05/06/02 After Injection 3	07/22/02 After Injection 4	11/25/02 Follow up
Groundwater Sample ID:	GW-17303-JH-121401-104	GW-17303-JH-121401-105	GW-17303-011402-BN-116	GW-17303-031402-TJ-122	GW-17303-050602-MM-128	GW-17303-072202-MM-135	GW-17303-112502-MM-142
Analytes							
pH	6.82	6.82	7.28	7.34	7.71	7.412	7.49
DO (mg/l)	1.18	1.18	0.75	0.23	0.21	0.226	0.42
ORP (Mv)	18.9	18.9	58	254	560	388.2	-138
Specific Conductivity (Ms/cm)	1.794	1.794	2.41	2.4	3.05	2.4	3.32
Turbidity (NTU)	NA	NA	2.39	4.31	20.2	~50	0.05
Temp. (C)	12.9	12.9	11.63	9.78	11.93	17.91	13.94
Chloride (mg/l)	345	362	290	345	339	1790	613
KMnO4 (mg/l)			ND(5)	ND(5)	ND(5)	ND(5)	na
Manganese (mg/l)	1.02	1.03	9.88	11.7	6.39	9.44	na
Potassium (mg/l)	3.83	4.12	528	341	693	1,270	na
Aerobic Total Microbial Population (CFUs/ml)			1.60E+04		1.8E+04	1.30E+04	
Aerobic Total Microbial Population (CFUs/ml)-dup			1.70E+04				
Anerobic Total Microbial Population (CFUs/ml)			5.30E+04		2.8E+03	1.50E+03	
Anerobic Total Microbial Population (CFUs/ml)-dup.			6.10E+04				
VOCs (ug/l):							
(MDEQ GSI Criteria shown in [brackets])							
1,1,2-Trichloroethane - [330(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2	ND(1)
1,1-Dichloroethane - [740]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2	ND(1)
1,1-Dichloroethene - [65(X)]	2	2	ND(1)	ND(1)	ND(1)	3	ND(1)
1,2,3-Trichloropropane	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2,4-Trimethylbenzene - [17]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,2-Dichloroethane - [360(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3	ND(1)
1,2-Dichloropropane - [290(X)]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
1,3,5-Trimethylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
2-Butanone (MEK) -[2,200]	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND (25)
Acetone - [1,700]	ND(100)	ND(100)	ND(100)	ND(100)	140	ND(100)	ND (25)
Benzene- [200]	5	5	3	3	2	110	ND (1)
Bromodichloromethane - [ID]	ND(1)	ND(1)	1	2	2	ND(1)	ND (1.0)
Carbon disulfide - [ID]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	19	ND (5)
Chloroform - [170]	10	9	10	16	11	6	2
Ethylbenzene - [18]	ND(1)	1	ND(1)	ND(1)	ND(1)	ND(1)	ND (1)
Isopropylbenzene - [ID]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND (5)
Methylene Chloride -[940]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
n-Propylbenzene - [30]	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND (5)
Naphthalene - [13]	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND (5)
Toluene - [140]	4	4	1	1	1	120	1
Trichloroethene- [200]	10,000	13,000	8,400	8,300	5,800	65	1,400
Vinyl chloride -[15]	87(J)	96(J)	19	110	19	27,000	86
cis-1,2-Dichloroethene -[620]	2,100	2,300	310	700	360	1,500	570
trans-1,2-Dichloroethene - [1,500]	78	69	12	ND(50)	10	150	27
Xylenes (total) - [35]	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	93	ND (3)
Water Level Data							
Depth to Water (feet below top of riser)	12.5	12.5	12.47	11.71	11.72 Dark purple water	13.03 Light Brown / Purple Liquid	13.35
NOTES:							

MDEQ Part 201 GSI Criteria exists for compound
Meets MDEQ GSI Criteria
Does not meet MDEQ GSI Criteria
CFU = Colony Forming Unit
ND(x)=Not detected at or above concentration x
(J)=Estimated value
[ID] = Inadequate data to develop MDEQ criteria
na = not analyzed
{X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source.

TABLE 5.3

GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

			Area 1									
			Regularly Monitored			Extended November Sampling Event						
Location			**IW-9**	**IW-12**	**IW-33**	**IW-2**	**IW-18**	**IW-26**	**IW-30**	**IW-30**	**MW-3**	
Analytes/Sample ID	**GSI**	**FAV**	*GW-17303-112502-MM-144*	*GW-17303-112502-MM-145*	*GW-17303-112602-MM-153*	*GW-17303-112602-MM-148*	*GW-17303-112602-MM-154*	*GW-17303-112602-MM-151*	*GW-17303-112602-MM-149*	*GW-17303-112602-MM-150* Duplicate	*GW-17303-112602-MM-152*	
pH			7.38	6.8	6.66	6.88	6.85	7.01	6.7	6.7	7.02	
DO (mg/l)			0.18	0.17	0.17	0.22	0.18	0.18	0.1	0.1	0.19	
ORP (mV)			-112	110	100	116	-120	-4	-97	-97	-63	
Specific Conductivity (mS/cm)			4.63	3.72	6.99	3.96	5.4	2.67	5.6	5.6	3.08	
Turbidity (NTU)			3.5	2	1.4	3.7	2	0.5	0.3	0.3	3.5	
Temp. (C)			13.04	14.09	16.14	13.47	14.79	13.14	15.33	15.33	15.87	
Chemical Oxygen Demand (mg/l)			240	135	146	133	126	76.9	174	169	71.8	
Chloride (mg/l)			946	753	2,010	928	1,580	560	1,490	1,490	595	
Diesel Range Organics (mg/l)			0.75	0.49	0.25	1	0.66	1.7 J	1.6	0.29	ND (0.1)	
Gasoline Range Organics (ug/l)			12,000	21,000	4,300	16,000	47,000	4,100	19,000	20,000	3,800	
VOCs (ug/l):												
1,1,1,2-Tetrachloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,1,1-Trichloroethane	200		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,1,2,2-Tetrachloroethane	78 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,1,2-Trichloroethane	330 {X}		ND (1.0)	ND (1.0)	**3**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,1-Dichloroethane	740		ND (1.0)	ND (1.0)	**2**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,1-Dichloroethene	65 {X}	2,300	**28**	**220**	**33**	**77**	**1,300**	**20 J**	**330**	**320**	**15**	
1,2,3-Trichloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,2,4-Trichlorobenzene	30		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,2,4-Trimethylbenzene	17	310	**10**	ND (1.0)	**3**	ND (1.0)	**44**	**36**	**20**	**20**	ND (1.0)	
1,2-Dibromo-3-chloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,2-Dichlorobenzene	16		**1**	ND (1.0)	ND (1.0)	ND (1.0)	**2**	ND (1.0)	**3**	ND (1.0)	ND (1.0)	
1,2-Dichloroethane	360 {X}		ND (1.0)	ND (1.0)	**4**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,2-Dichloropropane	290 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,3,5-Trimethylbenzene	ID		**4**	ND (1.0)	ND (1.0)	ND (1.0)	**10**	**7**	**7**	**8**	ND (1.0)	
1,3-Dichlorobenzene	38		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
1,4-Dichlorobenzene	13		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
2-Butanone (MEK)	2,200		ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	
2-Hexanone	NA		ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	
4-Methyl-2-pentanone	ID		ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	
Acetone	1,700		ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	
Benzene	200 {X}		**43**	**160**	**180**	**48**	**32**	**21 J**	**160**	**150**	**59**	
Bromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Bromodichloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Bromoform	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Bromomethane	35		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Carbon disulfide	ID		ND (5.0)	**5**	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	
Carbon tetrachloride	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Chlorobenzene	47		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Chloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Chloroform	170 {X}		ND (1.0)	ND (1.0)	**1**	ND (1.0)	**1**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Chloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Dibromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Dibromomethane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Dichlorodifluoromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Ethyl Ether	ID		ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	
Ethylbenzene	18	320	**30**	**7**	ND (1.0)	ND (1.0)	**170**	**28**	**5**	**5**	**1**	
Iodomethane	NA		ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	
Isopropylbenzene	ID		**38**	ND (5.0)	ND (5.0)	ND (5.0)	**16**	**58**	**94**	**94**	ND (5.0)	
Methylene Chloride	940 {X}		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	
n-Propylbenzene	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	**5**	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	
Naphthalene	13	200	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	**20**	**100**	**73**	**83**	ND (5.0)	
Styrene	80		**7**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	**1**	ND (1.0)	ND (1.0)	
Tetrachloroethene	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Toluene	140	1,700	**1,200**	**480**	**210**	**110**	**1,400 J**	**300**	**270**	**260**	**48**	
trans-1,4-Dichloro-2-Butene	NA		ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	
Trichloroethene	200 {X}	3,500	**14**	**780**	**150**	**58**	**24,000**	**700**	**26**	**26**	**1**	
Vinyl chloride	15	17,000	**73,000**	**74,000**	**100,000**	**49,000**	**17,000**	**12,000**	**75,000**	**75,000**	**19,000**	
cis-1,2-Dichloroethene	620	11,000	**29,000**	**60,000**	**7,400**	**53,000**	**76,000**	**13,000**	**58,000**	**60,000**	**9,800**	
cis-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
trans-1,2-Dichloroethene	1,500	28,000	**860 J**	**2,200**	**600**	**1,800 J**	**8,400**	**440 J**	**3,800**	**4,100**	**420 J**	
trans-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Xylenes (total)	35	630	ND (3,000)	**100**	**196**	**83**	**1,360**	**120**	**260**	**260**	**6**	

Notes

GSI Groundwater Surface Water Interface Criteria MDEQ Part 201 Generic Cleanup Criteria and Screening Levels - December 21, 2002
FAV Final Acute Value, MDEQ [Rule 323.1057 (Toxic Substances) of the Part 4. Water Quality Standards]
{X} The GSI criterion shown is not protective for surface water that is used as a drinking water source.
J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample (for detected parameters).
ID Inadequate data to develop criterion.
NA Criterion or value is not available.

TABLE 5.3

GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

			Area 2			
			Regularly Monitored		Extended November Sampling Event	
Location			**IW-46**	**IW-49**	**IW-45**	**MW-12**
Analytes/Sample ID	**GSI**	**FAV**	*GW-17303-112502-MM-143*	*GW-17303-112502-MM-142*	*GW-17303-112502-MM-140*	*GW-17303-112502-MM-141*
pH			6.88	7.49	7.2	6.87
DO (mg/l)			0.13	0.42	0.52	0.39
ORP (mV)			218	-138	220	232
Specific Conductivity (mS/cm)			3.97	3.32	2.55	2.01
Turbidity (NTU)			3.2	0.05	1.3	2.4
Temp. (C)			14.06	13.94	12.01	11.48
Chemical Oxygen Demand (mg/l)			47.5	42.5	55	5
Chloride (mg/l)			788	613	359	280
Diesel Range Organics (mg/l)			0.26	0.2	0.47	ND (0.1)
Gasoline Range Organics (ug/l)			4,700	480	350	140
VOCs (ug/l):						
1,1,1,2-Tetrachloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	200		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2,2-Tetrachloroethane	78 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	330 {X}		**2**	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethane	740		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	65 {X}		**18**	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	30		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trimethylbenzene	17		**1**	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromo-3-chloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	16		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	360 {X}		**12**	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	290 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3,5-Trimethylbenzene	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	38		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	13		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Butanone (MEK)	2,200		ND (25)	ND (25)	ND (25)	ND (25)
2-Hexanone	NA		ND (50)	ND (50)	ND (50)	ND (50)
4-Methyl-2-pentanone	ID		ND (50)	ND (50)	ND (50)	ND (50)
Acetone	1,700		ND (25)	ND (25)	ND (25)	ND (25)
Benzene	200 {X}		**15**	ND (1.0)	ND (1.0)	ND (1.0)
Bromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	35		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Carbon disulfide	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Carbon tetrachloride	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	47		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	170 {X}		**5**	**2**	ND (1.0)	ND (1.0)
Chloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromomethane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethyl Ether	ID		ND (20)	ND (20)	ND (20)	ND (20)
Ethylbenzene	18		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Iodomethane	NA		ND (10)	ND (10)	ND (10)	ND (10)
Isopropylbenzene	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene Chloride	940 {X}		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
n-Propylbenzene	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Naphthalene	13		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Styrene	80		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	140		**40**	**1**	ND (1.0)	ND (1.0)
trans-1,4-Dichloro-2-Butene	NA		ND (50)	ND (50)	ND (50)	ND (50)
Trichloroethene	200 {X}	3,500	**220**	**1,400**	**560 J**	**140**
Vinyl chloride	15	17,000	**2,800**	**86**	**32**	ND (1.0)
cis-1,2-Dichloroethene	620	11,000	**13,000**	**570**	**480**	**14**
cis-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	1,500		**360 J**	**27**	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylenes (total)	35	630	**49**	ND (3.0)	ND (3.0)	ND (3.0)

Notes

GSI	Groundwater Surface Water Interface Criteria MDEQ Part 201 Generic Cleanup Criteria and Screening Levels - December 21, 2002
FAV	Final Acute Value, MDEQ [Rule 323.1057 (Toxic Substances) of the Part 4. Water Quality Standards]
{X}	The GSI criterion shown is not protective for surface water that is used as a drinking water source.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample (for detected parameters).
ID	Inadequate data to develop criterion.
NA	Criterion or value is not available.
	Exceeds GSI criteria
ND (50)	Not detected at the reporting limit (in brackets)

TABLE 5.3

GROUNDWATER ANALYTICAL RESULTS
NOVEMBER 2002
CVO AREA
FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

			Site Wide Wells			
			Extended November Sampling Event			
Location			**MW-4**	**MW-13**	**MW-13**	**MW-14**
Analytes/Sample ID	**GSI**	**FAV**	*GW-17303-112602-MM-155*	*GW-17303-112502-MM-137*	*GW-17303-112502-MM-139*	*GW-17303-112502-MM-138*
					Duplicate	
pH			7.09	7.14	7.14	7.24
DO (mg/l)			0.14	1.83	1.83	0.49
ORP (mV)			-127	126	126	-30
Specific Conductivity (mS/cm)			4.86	1.22	1.22	1.24
Turbidity (NTU)			4.3	0.43	0.43	0.8
Temp. (C)			11.24	12.24	12.24	13.37
Chemical Oxygen Demand (mg/l)			18	ND (3.0)	ND (3.0)	ND (3.0)
Chloride (mg/l)			1,530	186	151	162
Diesel Range Organics (mg/l)			ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Gasoline Range Organics (ug/l)			ND (20)	ND (20)	ND (20)	ND (20)
VOCs (ug/l):						
1,1,1,2-Tetrachloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	200		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2,2-Tetrachloroethane	78 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	330 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethane	740		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	65 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	30		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trimethylbenzene	17		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromo-3-chloropropane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	16		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	360 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	290 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3,5-Trimethylbenzene	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	38		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	13		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Butanone (MEK)	2,200		ND (25)	ND (25)	ND (25)	ND (25)
2-Hexanone	NA		ND (50)	ND (50)	ND (50)	ND (50)
4-Methyl-2-pentanone	ID		ND (50)	ND (50)	ND (50)	ND (50)
Acetone	1,700		ND (25)	ND (25)	ND (25)	ND (25)
Benzene	200 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	35		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Carbon disulfide	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Carbon tetrachloride	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	47		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	170 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromomethane	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ID		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethyl Ether	ID		ND (20)	ND (20)	ND (20)	ND (20)
Ethylbenzene	18		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Iodomethane	NA		ND (10)	ND (10)	ND (10)	ND (10)
Isopropylbenzene	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene Chloride	940 {X}		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
n-Propylbenzene	ID		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Naphthalene	13		ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Styrene	80		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	45 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	140		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,4-Dichloro-2-Butene	NA		ND (50)	ND (50)	ND (50)	ND (50)
Trichloroethene	200 {X}		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vinyl chloride	15		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	620		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	1,500		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	NA		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylenes (total)	35		ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)

Notes

GSI	Groundwater Surface Water Interface Criteria MDEQ Part 201 Generic Cleanup Criteria and Screening Levels - December 21, 2002
FAV	Final Acute Value, MDEQ [Rule 323.1057 (Toxic Substances) of the Part 4. Water Quality Standards]
{X}	The GSI criterion shown is not protective for surface water that is used as a drinking water source.
ID	Inadequate data to develop criterion.
NA	Criterion or value is not available.
	Exceeds GSI criteria
ND (50)	Not detected at the reporting limit (in brackets)

APPENDIX A

LABORATORY ANALYTICAL REPORTS
(Not included in this report copy)

APPENDIX B

DATA EVALUATION AND VALIDATION MEMOS
(Not included in this report copy)

APPENDIX H.2

SOIL INTERIM RESONSE ACTION REPORT

SOIL INTERIM RESPONSE ACTION REPORT

FORMER WILLOW RUN ASSEMBLY PLANT
GM COMPANY VEHICLE OPERATIONS (CVO) AREA
YPSILANTI, MICHIGAN

Prepared for: ENCORE

OCTOBER, 2003
REF. NO. 17303 (5)

EXECUTIVE SUMMARY

Conestoga-Rovers & Associates (CRA) was retained by ENCORE to design and implement a Soil Interim Response Action (Soil IRA) at the GM Company Vehicle Operations (CVO) Area at the former Willow Run Assembly Plant located in Ypsilanti, Michigan (Site). The soil has been impacted by chlorinated and non-chlorinated volatile organic compounds (VOCs). This report summarizes the full-scale implementation of the soil IRA.

The Site consists of an administrative and maintenance/garage building and a large parking lot. A groundwater IRA is being conducted in two areas at this Site to reduce the concentration of target VOC constituents by a chemical oxidation process. This process is achieved by injecting Potassium Permanganate into two areas with highest VOC concentrations at the Site.

During monitoring and injection activity, free product, light non-aqueous phase liquid (LNAPL) was observed in two injection wells within Injection Area 1. It was also determined that several underground utilities are located beneath the Site and may be acting as preferential migration pathways. Prior to implementing the Soil IRA, several investigations were completed to determine the condition and location of underground utilities in the area of the planned Soil IRA. The Soil IRA was designed to eliminate LNAPL-impacted soils, and included the following tasks:

- Relocation of the Above Ground Storage Tank (AST), and
- Excavation of LNAPL-impacted soil near and below the AST location

A concrete pad was constructed and the AST was relocated to the south side of the Site. The LNAPL-impacted soil in the vicinity of AST location area was excavated. A total of 225 cubic yards of impacted soil was removed from the Site. The excavated cavity was backfilled with the excavated overburden material and clean fill.

There is no evidence that the AST was the source of the impacted soil. Further, a specific LNAPL source could not be located.

This Soil IRA accomplished its goal of removing LNAPL-impacted soil from a limited area to eliminate an ongoing source of groundwater contamination that was limiting chemical oxidation remediation progress.

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LIST OF ACRONYMS

AST	ABOVEGROUND STORAGE TANK
bgs	BELOW GROUND SURFACE
COC	CONSTITUENTS OF CONCERN
CRA	CONESTOGA-ROVERS & ASSOCIATES
CVO	COMPANY VEHICLE OPERATIONS
EM	ELECTROMAGNETIC
EZ	EXCLUSIVE ZONE
GPR	GROUND PENETRATING RADAR
IRA	INTERIM RESPONSE ACTION
IWPC	INLAND WATERS POLLUTION CONTROL, INC.
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
MDEQ	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
PCB	POLYCHLORINATED BIPHENYL
PID	PHOTOIONIZATION DETECTOR
PPE	PERSONAL PROTECTIVE EQUIPMENT
PPM	PARTS PER MILLION
SOW	STATEMENT OF WORK
VOC	VOLATILE ORGANIC COMPOUND

1.0 INTRODUCTION

1.1 GENERAL

Conestoga-Rovers & Associates, Inc. (CRA) was retained by ENCORE[1] to design and implement a Soil Interim Response Action (IRA) at the GM Company Vehicle Operations (CVO) Area at the former Willow Run Assembly Plant located in Ypsilanti, Michigan (Site). Figure 1.1 presents the Site location. The general layout of the Site is presented on Figure 1.2. The Site groundwater has been impacted by chlorinated and non-chlorinated volatile organic compounds (VOCs).

A Groundwater IRA was conducted at the Site by injecting chemical oxidant (Potassium Permanganate) using several injection wells in high concentration areas to reduce the contaminants of concern (COC) concentrations in the groundwater. During the Groundwater IRA, light non-aqueous phase liquid (LNAPL) was observed in two injection wells within Injection Area 1.

This Soil IRA was designed to increase the effectiveness of the groundwater IRA by removing soils impacted with LNAPL which consumes the chemical oxidant, reducing the effectiveness of the injections. Underground utilities located within the Site that may be acting as preferential migration pathways for the transport of contaminants to surface water were investigated.

The utility investigation and Soil IRA activities were completed between June 3, 2003 and July 12, 2003.

1.2 REPORT ORGANIZATION

This report is presented in the following sections:

1.0 Introduction
2.0 Scope of Work
3.0 Project Management
4.0 Health and Safety and Ambient Air Monitoring
5.0 Project Quality Assurance Plans
6.0 Conclusions and Recommendations

[1] ENCORE is a wholly owned subsidiary of General Motors.

2.0 SCOPE OF WORK

The Soil IRA scope of work (SOW) involved excavating LNAPL-impacted soils for disposal. Prior to implementing the Soil IRA, several investigations were completed to determine the condition and location of underground utilities in the area of the planned Soil IRA.

2.1 UTILITY INVESTIGATION

The SOW consisted of the following investigative activities:

- Videotaping storm sewers to check the general integrity of the piping located within the proposed excavation area;
- Conducting ground penetration radar (GPR) survey at the Site to locate a former diesel fuel line and to locate utilities along the south side of the Site; and
- Excavating tests to verify locations of the former diesel line, investigate the sinkhole, inspect bedding of a storm sewer line, and investigate the potential depth of soil contamination.

2.1.1 STORM SEWER INTEGRITY INSPECTION

Several storm sewers were televised by Inland Water Pollution Control, Inc. (IWPC) on May 1, 2003 prior to excavating test pits to determine the condition of the sewers. The video inspection indicated that the general integrity of storm sewer piping was good, but showed evidence of leaks at most joints. A copy of the report prepared by IWPC is presented in Appendix A.

2.1.2 GROUND PENETRATING RADAR STUDY

A GPR study was conducted at the Site in an attempt to locate the former diesel line and other utilities on May 6, 7 and 8, 2003. GPR is a short-range system for remote sensing, which measures short pulse electromagnetic (EM) reflections due to variations in the electrical properties of the investigated medium. GPR uses high frequency pulsed electromagnetic waves to acquire subsurface information. The electromagnetic wave radiated from a transmitting antenna, travels through the material at a velocity dependent on the electrical properties of the material. As the wave propagates, it hits

objects or boundaries with different electrical properties, and part of the wave energy is reflected or scattered back to the source. The wave that is reflected back is captured by an antenna and an image is created that is reflective of distances to the materials and boundaries present beneath the surface. The results of the GPR study indicated the presence of underground utilities at the south side of the Site, but to failed to positively identify the location of the diesel line due to interference. A copy of the GPR survey report is presented in Appendix B.

2.1.3 TEST PITS

CRA excavated four test pits (TP-1, TP-2, TP-5, and TP-6) to primarily investigate the location of the former diesel line and evaluate the condition of the soils. The former diesel fuel line was not found in any of the test pits. An electrical conduit was found in one of the test pits (TP-6). Two additional test pits were conducted to investigate a former sink hole location (TP-4) and the sewer bedding near Manhole 2 (TP-3).

CRA collected at least one soil sample of material at each test pit for waste characterization for the Soil IRA. The results are compiled in Table 2.1. Copies of analytical results are presented in Appendix C.

2.1.3.1 FORMER DIESEL FUEL LINE TEST PIT - TP-1

This test pit located to the south of the shed area was excavated on June 3, 2003 (Figure 2.1). The dimensions of this test pit were 13 feet long, 5 feet wide and 11 feet deep. The excavation involved removal of a concrete layer to an approximate depth of 1 foot below ground surface (bgs). A gravel sub-grade was observed up to a depth of 18 inches bgs, followed by silty gray sand to a depth of at least 11 feet bgs.

During the excavation activity, strong petroleum and solvent odors were noticed at depths between and 1 and 11 feet bgs. Groundwater was encountered at a depth of 11 feet bgs. The groundwater had an oily sheen with LNAPL observed on the water surface.

A total of approximately 36 cubic yards of soil was excavated from this location. The test pit was backfilled and compacted with the excavated material. Field screening of excavated soil using a photo-ionization detector (PID) indicated a reading of 14.1 parts per million (ppm). This investigation did not confirm the presence of conduits

identified during the GPR study. The suspected diesel fuel line was not observed in TP-1.

2.1.3.2 FORMER DIESEL FUEL LINE TEST PIT - TP-2

This test pit located to the north of the Haulaway Building was excavated on June 3, 2003 (Figure 2.1). The dimensions of this test pit were 11 feet long, 3.5 feet wide and 6 feet deep. The excavation involved removal of a concrete layer to a depth of 9 inches bgs, followed by heterogeneous mixture of sand, gravel, broken concrete and wood floor blocks to a depth of at least 6 feet bgs.

Visual observation during excavation indicated no visible signs of impact in the soil. No groundwater was encountered or expected during excavation based on the shallow depth of excavation. No conduits were identified in this test pit. The suspected diesel fuel line was not observed in TP-2.

A total of approximately 8 cubic yards of soil was excavated from this location. The test pit was backfilled and compacted with the excavated material. Field screening of excavated soil using a PID did not indicate any readings.

2.1.3.3 FORMER DIESEL FUEL LINE TEST PIT - TP-5

This test pit located to the southeast side of the Haulaway Building at the south edge of the parking lot was excavated on June 5, 2003 (Figure 2.1). The dimensions of this test pit were 10 feet long, 4.6 feet wide and 11 feet deep. The excavation involved removal of a concrete layer to a depth of 10 inches, followed by gravel to a depth of 1.5 feet. Moist brown silty sand was excavated at depths between 1.5 and 5 feet bgs, followed by gray sand to a depth of 11 feet bgs.

During the excavation activity, strong solvent odors were noticed at depths between and 5.5 and 11 feet bgs. Evidence of groundwater was visible at a depth of 11 feet bgs. No conduits were identified in the test pit. The suspected diesel fuel line was not observed in TP-5.

A total of approximately 19 cubic yards of soil was excavated from this location. The test pit was backfilled and compacted with the excavated material. Field screening of excavated soil using a PID indicated a reading of 20.3 ppm.

2.1.3.4 FORMER DIESEL FUEL LINE TEST PIT – TP-6

This test pit located to the northeast side of the Haulaway Building was excavated on June 4, 2003 (Figure 2.1). The dimensions of this test pit were 8.5 feet long, 3 feet wide and 6.5 feet deep. The excavation involved removal of a concrete layer to a depth of 8 inches, followed by brown silty sand to a depth of 3 inches. This layer was followed by a heterogeneous mixture of gray sand, broken concrete, wood and other fill material to a depth at least 6.5 feet bgs. The excavation was terminated at 6.5 feet bgs.

During excavation activity, petroleum odor was noticed at depths between and 3 and 6.5 feet bgs. No groundwater was encountered or expected at this location. An electric conduit was encountered at 8 inches bgs. The suspected diesel fuel line was not observed in TP-6.

A total of approximately 7 cubic yards of soil was excavated from this location. The test pit was backfilled and compacted with the excavated material. Field screening of excavated soil using a PID did not indicate any readings.

2.1.3.5 SINK HOLE TEST PIT – TP-4

The sink hole test pit located near the northern Site boundary just northwest of MW3 was excavated to investigate the reason for the sink hole (Figure 2.1). This excavation was completed on June 3, 2003. The dimensions of this test pit were 10.5 feet long, 8 feet wide and 5 feet deep.

The excavation identified solidified bags of concrete, rusted deteriorated drums remnants, yellow fragments of paints and pigments, garbage, remnants of fiberglass drums, solidified brown primers, copper cables and bricks at depths between 1.25 and 4 feet bgs. No utility or groundwater was encountered during this excavation.

A total of approximately 16 cubic yards of soil and buried materials were excavated from this location. The test pit was backfilled and compacted with the excavated material. Field screening of excavated soil using a PID indicated a reading of 30.8 ppm.

2.1.3.6 SEWER PIPE TEST PIT – TP-3

This test pit was located at the sewer area adjacent to Manhole 2 (Figure 2.1). The test pit was conducted to determine if impacted groundwater could be utilizing the sewer bedding as a preferential pathway to Tyler Pond.

The dimension of this test pit was 16 feet long, 12 feet wide and 11 feet deep. The excavation involved removal of 3 inches of an asphalt layer, followed by a heterogeneous mixture of fill sand, gravel and wet sand around the pipe to a depth of 11 feet bgs.

Visual observation during excavation indicated no visible signs of impact in the soil. No groundwater was encountered during excavation. A total of approximately 78 cubic yards of soil was excavated from this location. The test pit was backfilled and compacted with the excavated material.

2.2 SOIL IRA

The Soil IRA SOW consisted of the following tasks:

- Relocate the Above Ground Storage Tank (AST); and,
- Excavation of soil in the vicinity of AST area to remove LNAPL-impacted soils.

CRA's responsibilities included design, construction oversight and documentation of the Soil IRA activities conducted at the Site and to ensure that the IRA activities were properly implemented.

2.2.1 RELOCATION OF AST

Two ASTs were present within the proposed excavation area. These ASTs were used daily and required relocation prior to the soil excavation. One AST contained gasoline and consisted of two 3,000-gallon tanks within one concrete secondary containment unit. The second AST was a 1,000-gallon diesel AST. The diesel AST was removed by the Site operators prior to the Soil IRA. There was no evidence that these ASTs leaked.

The SOW involved installation of a new 6-inch reinforced concrete pad, electrical disconnect and reconnects for the gasoline AST, repositioning and reconnecting of the AST and demolition, transport and disposal of the old concrete pad.

The application for the installation of the AST was submitted to the Michigan Department of Environmental Quality (MDEQ), Waste and Hazardous Materials Division on June 24, 2003. The MDEQ issued a plan review approval notice (reference number: PR-0182-03) on July 2, 2003. The AST was relocated to the new AST pad. An MDEQ inspector conducted an inspection on July 11, 2003 and issued an approval to place the AST back in service.

2.2.2 EXCAVATION OF IMPACTED SOIL

The soil excavation started on July 2, 2003. The approximate limits of the excavation are presented in Figure 2.1. The limits of excavation were determined based on observations made during the installation of the injection wells and results of the test pit activities. Soils were excavated to a depth of approximately 12 feet bgs. The water table is located at approximately 11 feet bgs. The soil interval from 9 to 12 feet bgs was excavated and stored in roll-off boxes or in a pile (covered with visqueen) until disposed. This material is expected to be the smear zone due to fluctuating groundwater levels throughout the year. The overburden, 0 to 9 feet bgs was used as backfill. A total of 225 cubic yards (375 tons) of non-hazardous soil was disposed of in a licensed landfill. Copies of the disposal manifests are presented in Attachment D.

The 9 to 12 feet bgs interval was backfilled with approximately 3 feet of pea gravel and covered with filter fabric. Two sumps were located within the excavation to facilitate groundwater access at the pea gravel layer at a later date, if needed. The excavation was backfilled with the excavated overburden and clean fill sand. The backfill material was properly compacted. The excavation activity was completed on July 12, 2003.

During the excavation activity, a 2.5-inch diameter diesel pipeline was encountered just west of the shed. Product was evident in the pipe. Approximately 5 gallons of diesel oil was drained from the pipe and containerized in a Michigan Department of Transportation (MDOT) approved 55-gallon drum for disposal. The section of the pipe passing though the area of excavation was removed to prevent hindrance of the excavation activity. The diesel pipe was capped on July 8, 2003, prior to backfilling the excavation.

An 18-inch diameter storm sewer pipe was also encountered within the excavation area. A section of this pipe passing through the area of excavation was removed on July 8, 2003 to prevent hindrance of the excavation activity. The section of the removed pipe was replaced the same day, prior to backfilling the excavation.

Excavation was conducted down to the groundwater table. Significant rain events during the excavation activity required the removal of groundwater from the excavation. Approximately 4,000 gallons of groundwater was placed into a Frac Tank until properly disposed of.

The removed groundwater was characterized and disposed as a hazardous waste (D043) on August 12, 2003.

3.0 PROJECT MANAGEMENT

3.1 CONSTRUCTION MANAGEMENT

CRA conducted the investigation and provided oversight of excavation and construction activities at the Site.

The following companies also provided services for this project

i. IWPC conducted video inspection of the storm sewer and a portion of the diesel fuel line. IWPC also performed soil excavation and assisted with the transportation and disposal of soil and water;

ii. A.F. Smith Electricians provided electrical repairs during test pit excavations;

iii. North Point Electrical provided electrical disconnect and reconnect for the ASTs;

iv. Disposal Facilities:

- Woodland Meadows Landfill: Disposal of excavated soil (non-hazardous);
- Edwards Oil Service: Disposal of storm sewer cleaning water (non-hazardous);
- US Liquids of Detroit: Disposal of groundwater removed from excavation (characteristically hazardous for vinyl chloride - D043); and
- Chemical Waste Management Model City Landfill – Disposal of storm sewer cleaning solids/sediments (non-hazardous).

3.2 PROJECT DOCUMENTATION

CRA maintained a daily Site logbook for documentation of Site activities. Records that were maintained on a daily basis included weather conditions, on-Site personnel, remedial activities conducted, and excavation details. Copies of the project documentation and reporting are maintained at CRA's Michigan office in Plymouth, Michigan.

3.3 SITE SECURITY

The GM CVO facility is a secure facility due to the nature of normal business activities. No additional security was necessary or provided during this Soil IRA. The existing Site security is provided 24 hours a day and 7 days a week.

4.0 HEALTH AND SAFETY AND AMBIENT AIR MONITORING

4.1 WORK ZONE

The area enclosed within the excavation area was defined as the Exclusion Zone (EZ). The contaminant reduction zone consisted of an equipment decontamination area and surrounding area. All remaining areas were designated as support zones. Personal Protective Equipment (PPE) was utilized for Site operations, as required.

4.2 HEALTH AND SAFETY MONITORING

Air monitoring was conducted at the Site to ensure the protection of Site personnel. Air monitoring was conducted in accordance with the Health and Safety Plan prepared by CRA (Health and Safety Plan-Test Pits) dated May 22, 2003. Air monitoring was performed during construction activities with a PID and calorimetric tube for vinyl chloride.

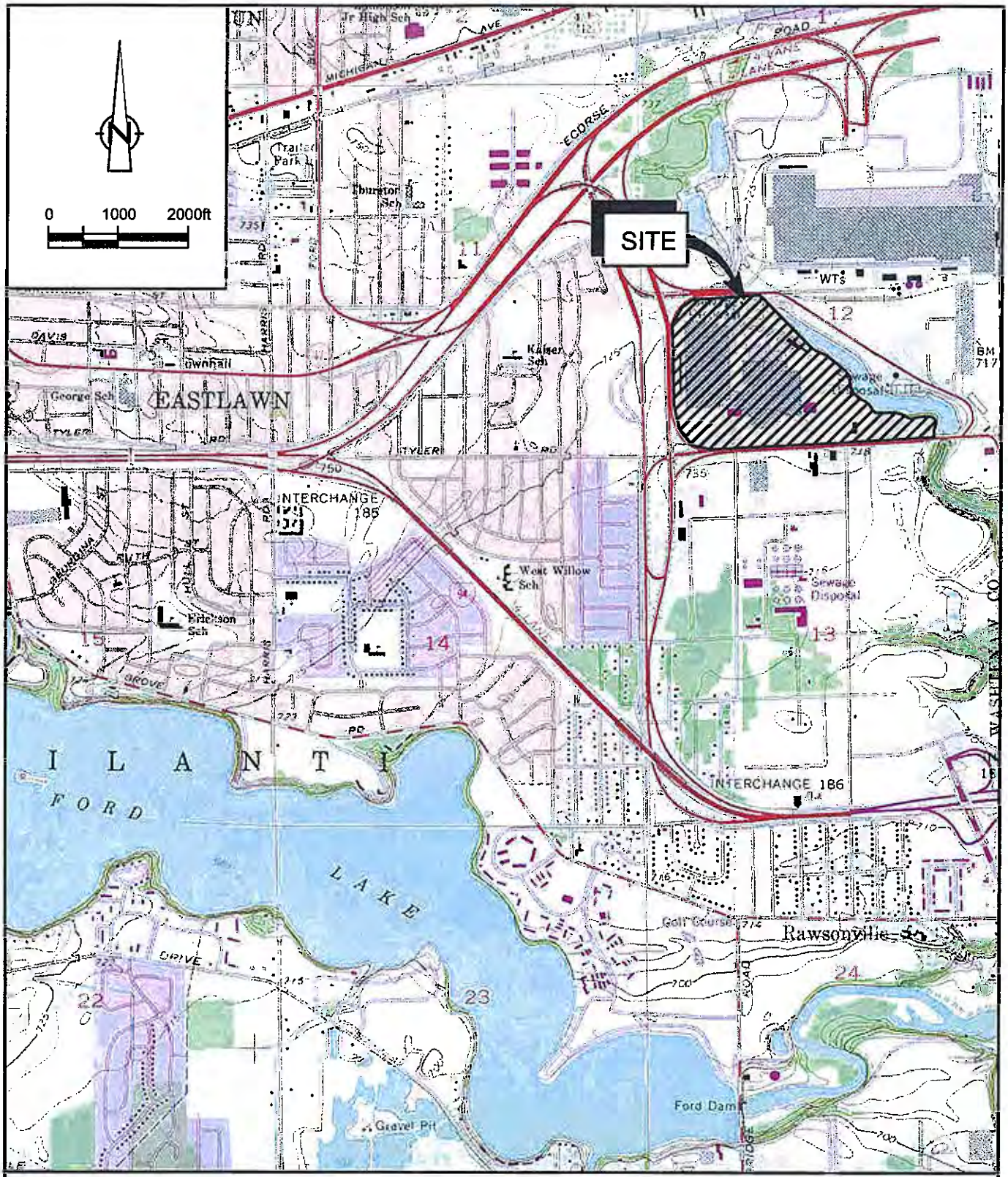
Generally, there were no significant detections of any constituents that required upgrading the PPE.

5.0 PROJECT QUALITY ASSURANCE PLANS

CRA adhered to strict project quality assurance procedures including discussions on the SOW, inspections, testing, quality control and reporting requirements. Polychlorinated biphenyl (PCB) wipe samples were collected from the excavation equipment used in the Soil IRA activity when it arrived at the Site to prevent cross contamination from external sources. The analytical results of this wipe sample analysis did not identify PCB concentrations above method detection limits. Copies of wipe sample analytical results are presented in Appendix C.

6.0 CONCLUSIONS

CRA, on behalf of ENCORE, performed a Soil IRA at the CVO Site during a two-week Site shutdown in July 2003. This Soil IRA included the removal of LNAPL-impacted soil from a limited area to remove a source of contamination that was likely interfering with the groundwater remediation activities.



SOURCE: USGS QUADRANGLE MAP;
YPSILANTI EAST, MICHIGAN

figure 1.1

ENCORE

SITE LOCATION
COMPANY VEHICLE OPERATIONS AREA
Ypsilanti, Michigan

17303-07(005)GN-DE001 OCT 23/2003

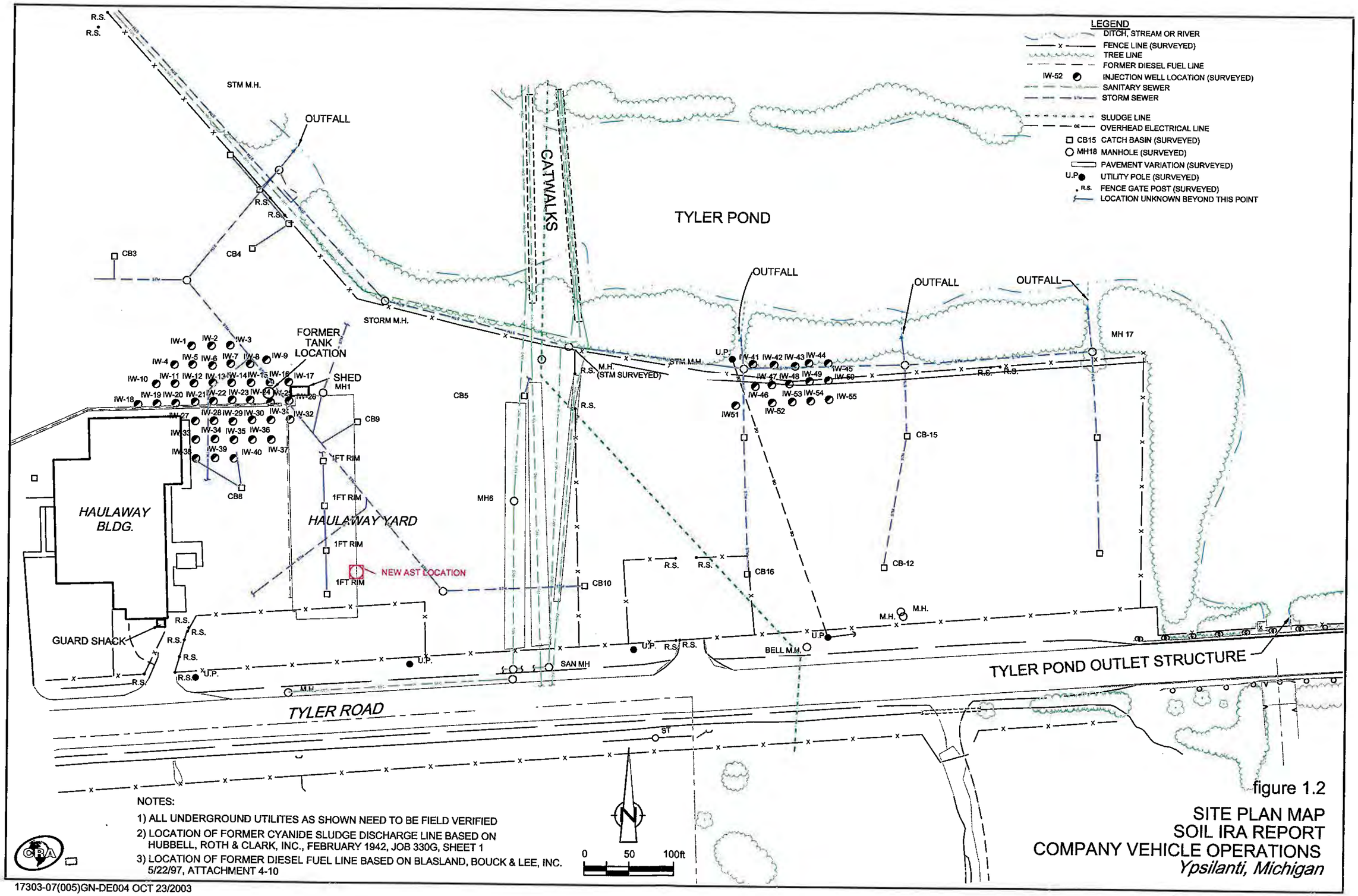


figure 1.2

SITE PLAN MAP
SOIL IRA REPORT
COMPANY VEHICLE OPERATIONS
Ypsilanti, Michigan

17303-07(005)GN-DE004 OCT 23/2003

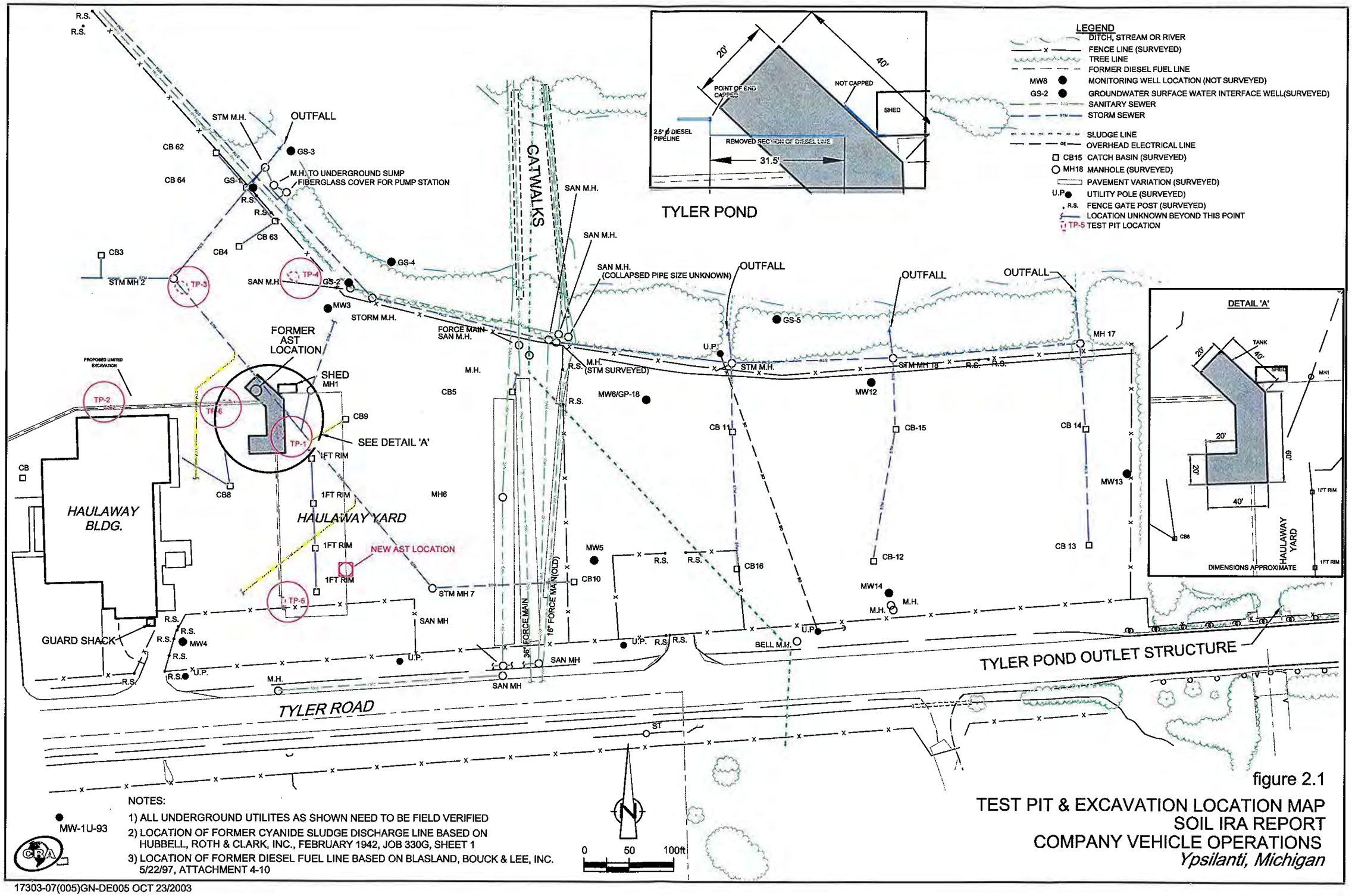


figure 2.1

TEST PIT & EXCAVATION LOCATION MAP
SOIL IRA REPORT
COMPANY VEHICLE OPERATIONS
Ypsilanti, Michigan

17303-07(005)GN-DE005 OCT 23/2003

TABLE 2.1
TEST PIT ANALYTICAL RESULTS
FORMER WILLOW RUN ASSEMBLY PLANT - CVO AREA
YPSILANTI, MICHIGAN

Chemical	TCLP Regulatory Level (mg/L)	SO-17303-MA-060403-197 TP-1 18" - 11'		SO-17303-MA-060403-198 TP-1 11'		SO-17303-MA-060303-194 TP-2		SO-17303-MA-060403-196 TP-3	SO-17303-MA-060303-193 TP-4		SO-17303-MA-060503-199 TP-5 11"		SO-17303-MA-060403-195 TP-6	
		TCLP (mg/L)	Total (mg/Kg)	TCLP (mg/L)	Total (mg/Kg)	TCLP (mg/L)	Total (mg/Kg)	Total (mg/Kg)	TCLP (mg/L)	Total (mg/Kg)	TCLP (mg/L)	Total (mg/Kg)	TCLP (mg/L)	Total (mg/Kg)
Aresenic	5.00	--	1.8	--	0.61	--	3.05	1.81	--	9.46	--	6.23	--	4.56
Barium	100.00	--	7.79	--	4.83	--	28.5	15.9	--	823	--	2.61	--	223
Benzene	0.50	ND (0.05)	ND (0.054)	ND (0.05)	0.25	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.05)	ND (0.055)	ND (0.05)	ND (0.057)
Cadmium	1.00	--	0.146	--	ND (0.065)	--	0.871	0.409	--	15.20	--	0.513	--	6.9
Carbon tetrachloride	0.50	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.05)	ND (0.055)	ND (0.05)	ND 0.057)
Chlorobenzene	100.00	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.05)	ND (0.055)	ND (0.05)	0.46
Chloroform	6.00	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.05)	ND (0.055)	ND (0.05)	ND (0.057)
Chromium	5.00	--	16.5	--	8.98	--	35.4	27.2	--	226	--	7.7	--	56.1
1,4-Dichlorobenzene	7.50	--	ND (0.11)	--	ND (0.13)	--	ND (0.11)	ND (0.13)	--	ND (0.12)	--	ND (0.11)	--	0.32
1,2-Dichloroethane	0.50	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.05)	ND (0.055)	ND (0.05)	ND (0.057)
1,1-Dichloroethylene	0.70	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (.06)	ND (0.05)	ND (0.055)	ND (0.05)	ND (0.057)
2,4-Dinitrotoluene	[1] 0.13	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND(0.75)
Hexachlorobenzene	[1] 0.13	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND (0.75)
Hexachlorobutadiene	0.50	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND (0.75)
Hexachloroethane	3.00	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND (0.75)
Lead	5.00	--	5.16	--	1.7	--	969	15.1	--	12,000	--	1.31	--	58.1
Mercury	0.20	--	ND (0.11)	--	ND (0.13)	--	ND (0.11)	ND (0.13)	--	ND (0.12)	--	ND (0.11)	--	ND (0.11)
Methyl ethyl ketone	200.00	ND (0.20)	ND (0.81)	ND (0.20)	ND (0.97)	ND (0.20)	ND (0.82)	ND (0.96)	ND (0.20)	ND (0.90)	ND (0.20)	ND (0.83)	ND (0.20)	ND (.85)
Nitrobenzene	2.00	--	ND (0.43)	--	ND (0.26)	--	ND (0.44)	ND (0.26)	--	ND (0.48)	--	ND (0.22)	--	ND (0.46)
Pentrachlorophenol	100.00	--	ND (1.7)	--	ND (1.0)	--	ND (1.8)	ND (1.0)	--	ND (1.9)	--	ND (0.89)	--	ND (1.8)
Selenium	1.00	--	ND (0.22)	--	ND (0.26)	--	ND (0.22)	ND (0.26)	--	1.33	--	0.571	--	1.04
Silver	5.00	--	ND (0.54)	--	ND (0.65)	--	ND (0.55)	ND (0.64)	--	1.3	--	ND (0.55)	--	ND (0.57)
Tetrachloroethylene	0.70	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	ND (0.064)	ND (0.05)	ND (0.06)	ND (0.050)	ND (0.055)	ND (0.05)	ND (0.057)
Trichloroethylene	0.50	ND (0.05)	ND (0.054)	ND (0.05)	ND (0.065)	ND (0.05)	ND (0.055)	1.4	ND (0.05)	1.3	ND (0.050)	ND (0.055)	ND (0.05)	ND (0.057)
2,4,5-Trichlorophenol	400.00	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND (0.75)
2,4,6-Trichlorophenol	2.00	--	ND (0.72)	--	ND (0.43)	--	ND (0.72)	ND (0.42)	--	ND (0.80)	--	ND (0.37)	--	ND (0.75)
Vinyl Chloride	0.20	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.13)	ND (0.10)	ND (0.11)	ND (0.13)	ND (0.10)	ND (0.12)	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.11)
PCBs (total) ppm	--	--	ND (0.36)	--	ND (0.43)	--	1.6	ND (0.42)	--	ND (0.40)	--	ND (0.37)	--	0.47

NOTES

[1] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level

ND() Constituent not detected at the reporting limit (in brackets).

APPENDIX A

STORM SEWER INTEGRITY TESTING REPORT

Inland Waters Pollution Control, Inc.
2021 South Schaefer Highway
Detroit, Michigan 48217
(313) 841-5800
(800) 992-9118
INLAND WATERS Fax: (313) 841-4155

LETTER OF TRANSMITTAL

DATE	JOB NO.
MAY 7, 2003	523 - 5800

ATTENTION PETE ROMZICK

RE: VIDEO INSPECTION TAPE
C.V.O PROPERTY
GM WILLOW RUN FACILITY
YPSILANTI, MI

TO CONESTOGA - ROVERS & ASSOC.
14496 SHELDON ROAD - SUITE 200
PLYMOUTH, MI 48170

WE ARE SENDING ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☒ VIDEO TAPE & LINE REPORT

COPIES	DATE	NO.	DESCRIPTION
1	MAY 1, 2003	829	1 EA VIDEO TAPE & LINE REPORT - CVO PROPERTY GM - YPSILANTI, MI

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☒ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS ADDITIONAL SET (1 EA) WILL BE AVAILABLE ALONG WITH CD VERSION BY 5-14-03.

COPY TO _____ SIGNED: Walter Taylor

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

PROJ INFO

PROJ NAME:	PROJECT NUM:	RESPONSIBLE:	DATE:
Willow Run C.V.O			05/01/2003

CLIENT	**GM**
RESPONSIBLE:	
DEPARTMENT:	
PO BOX:	
STREET:	
CITY, ST ZIP:	
TELEPHONE:	
FAX:	
MOBILE:	
E-MAIL:	

PROJ MGR	
RESPONSIBLE:	
DEPARTMENT:	
PO BOX:	
STREET:	
CITY, ST ZIP:	
TELEPHONE:	
FAX:	
MOBILE:	
E-MAIL:	

CONTRACTOR	**Inland Waters Pollution Control, Inc.**
RESPONSIBLE:	
DEPARTMENT:	**Pipe Rehabilitation**
PO BOX:	**N/A**
STREET:	**2021 S. Schaefer Highway**
CITY, ST ZIP:	**Detroit, MI 48217**
TELEPHONE:	**(800) 992-9118**
FAX:	**(313) 841-0082**
MOBILE:	**(313)218-3334**
E-MAIL:	**clintllewellyn@inlandwaters.com**

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax: (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	1	GM WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	2
CITY:	YPSILANTI, MI	MAP #2:		MH:	OUTFALL
LOCALE:	PARKING LOT	TAPE #:	829	TVD LGTH:	180.1 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	54"
SECTION TYPE:	STORM	MATERIAL:	CONCRETE JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:450	DIST	OBSERVATION	PH	RATE
2	4.90	inspection begins at upstream manhole (VCR 0:00:00)		0
	154.90	manhole not shown on print, visible		0
OUTFALL	180.10	inspection ends at OUTFALL		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax: (313) 841-0082

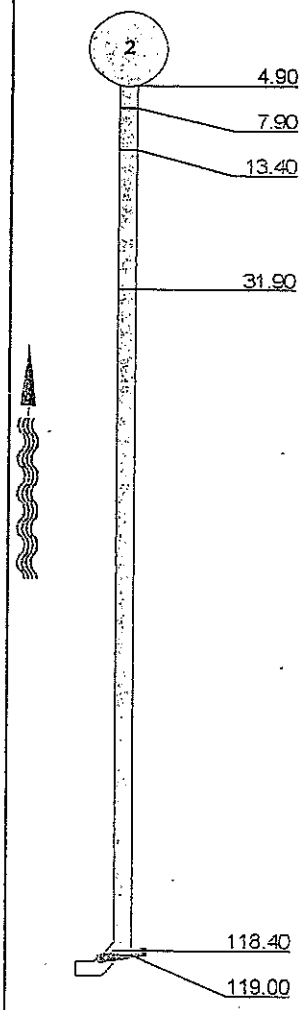
INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	2	GM-WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	850

STREET:	GM-C.V.O.	MAP #1:		MH:	2
CITY:	YPSILANTI, MI	MAP #2:		MH:	7
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	119 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	18"
SECTION TYPE:	STORM	MATERIAL:	CONCRETE JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:



1:300 DIST	OBSERVATION	PH	RATE
4.90	inspection begins at downstream manhole (VCR 0:04:37)		0
7.90	mineral deposits at joint, from 12 to 12 o'clock medium		2
13.40	mineral deposits at joint, from 12 to 12 o'clock light		1
31.90	mineral deposits at joint, from 12 to 12 o'clock medium		2
118.40	protruding service connection, at 03 o'clock		2
119.00	inspection abandoned DUE TO DEBRIS		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	3	GM-C.V.O.
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	260

STREET:	GM-C.V.O.	MAP #1:		MH:	7
CITY:	YPSILANTI, MI	MAP #2:		MH:	2
LOCALE:	PARKING LOT	TAPE #:	829	TVD LGTH:	334 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	18"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:825	DIST	OBSERVATION	PH	RATE
7	4.90	inspection begins at upstream manhole, REVERSE INSPECTION (VCR 0:09:07)		0
	123.10	service connection, at 09 o´clock		0
	[illegible]	hole in pipe at 10 o´clock		[illegible]
	211.20	service connection, at 03 o´clock		0
	215.40	pipe material changes at this point to CONCRETE		0
	223.00	protruding service connection, at 03 o´clock		2
	334.00	inspection abandoned COMPLETED REVERSE		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	4	GM-WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	11
CITY:	YPSILANTI, MI	MAP #2:		MH:	No #MH
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	75 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	15"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:200	DIST	OBSERVATION	PH	RATE
11				
	4.90	inspection begins at upstream manhole (VCR 0:18:53)		0
No #MH	75.00	inspection ends at downstream manhole (with outfall beyond)		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax: (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	5	GM-WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	11
CITY:	YPSILANTI, MI	MAP #2:		MH:	16
LOCALE:	PARKING LOT	TAPE #:	829	TVD LGTH:	66.3 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	12"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:200	DIST	OBSERVATION	PH	RATE
11				
	4.90	inspection begins at downstream manhole (VCR 0:20:23)		0
16				

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	6	GM-WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	15
CITY:	YPSILANTI, MI	MAP #2:		MH:	No #MH
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	77.7 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	15"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:200	DIST	OBSERVATION	PH	RATE
15	4.90	inspection begins at upstream manhole (VCR 0:23:13)		0
No #MH	77.70	inspection ends at downstream manhole (with outfall beyond)		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0062

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	7	GM-WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	15
CITY:	YPSILANTI, MI	MAP #2:		MH:	16
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	148.5 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	12"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:375	DIST	OBSERVATION	PH	RATE
15	4.90	inspection begins at downstream manhole (VCR 0:25:23)		0
16	148.50	inspection ends at upstream manhole		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

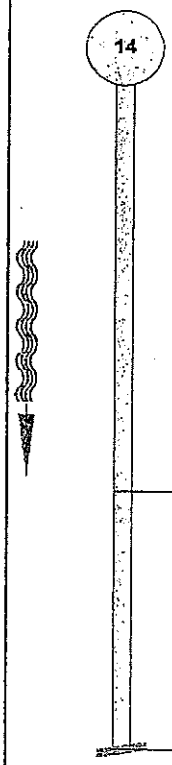
INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	8	GM WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	14
CITY:	YPSILANTI, MI	MAP #2:		MH:	OUTFALL
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	7.7 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	15"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:25	DIST	OBSERVATION	PH	RATE
				
	4.90	inspection begins at upstream manhole (VCR 0:29:08)		0
	7.70	inspection abandoned DUE TO DEBRIS		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax: (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	9	GM WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	14
CITY:	YPSILANTI, MI	MAP #2:		MH:	13
LOCALE:	PARKING LOT	TAPE #:	829	TVD LGTH:	129.4 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	12"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVD:	

REMARK:

1:325	DIST	OBSERVATION	PH	RATE
14	4.90	inspection begins at downstream manhole (VCR 0:29:51)		0
13	129.40	inspection ends at upstream manhole		0

Inland Waters Pollution Control, Inc.
2021 S. Schaefer Highway
Detroit, MI 48217
Tel: (800) 992-9118, Fax (313) 841-0082

INSPECTION REPORT

DATE:	WORK ORDER:	WEATHER:	OPERATOR:	SECTION NR:	SECTION NAME:
05/01/2003		SUNNY, DRY	Jason Atwood	10	GM WILLOW RUN
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**RATE:**
PETE ROMZICK-CRA	55168	Basic Tractor Camer	5	NO	0

STREET:	GM-C.V.O.	MAP #1:		MH:	14
CITY:	YPSILANTI, MI	MAP #2:		MH:	No #MH
LOCALE:	PARKING LOT	TAPE #:	829	TV'D LGTH:	96 ft

INSPECT REASON:	Pipeline Inspection	PIPE SIZE:	15"
SECTION TYPE:	STORM	MATERIAL:	VCP JT LGTH:
AREA:		LINING:	
		RSRVO:	

REMARK:

1:250	DIST	OBSERVATION	PH	RATE
14	4.90	inspection begins at upstream manhole (VCR 0:33:06)		0
No.#MH	96.00	inspection ends at downstream manhole (with outfall beyond)		0

APPENDIX B

GPR STUDY REPORT

CONESTOGA-ROVERS & ASSOCIATES
651 Colby Drive
Waterloo, Ontario, Canada N2V 1C2

TELEPHONE: (519) 884-0510 (Colby Office)
(519) 725-3313 (Bathurst Office)
FACSIMILE: (519) 884-0525

MEMORANDUM

TO:	Sube Velmurugesan	REF. NO.:	17303-02
FROM:	Joe Rothfischer	DATE:	May 30, 2003
C.C.:	Peter Romzick	REVISED:	August 11, 2003
RE:	Ground Penetrating Radar Investigation, GM Willow Run, MI.		

1.0 INTRODUCTION

A geophysical investigation was conducted by Conestoga-Rovers & Associates (CRA) at the Former GM Willow Run Facility (Site) near Ypsilanti Michigan, between May 6 and 8, 2003. The purpose of the investigation was to determine the presence of a suspected former diesel line at the Site, to survey a known sinkhole and delineate its extent, and to determine the alignment of any utilities extending southward towards Tyler Road and beyond the Site boundary. Based on the geophysical results, a test pitting program is recommended.

The CRA geophysical investigation was conducted using a Ground Penetrating Radar (GPR) system. Ground Penetrating Radar (GPR) utilizes high frequency (mHz range) electromagnetic (EM) signals to investigate subsurface conditions. Pulsed EM waves emitted from a transmitting antenna are propagated into the ground, and travel at velocities determined by the electrical properties of earth materials. If a wave hits a buried object or boundary with different electrical properties as it moves downward, part of the wave energy is reflected back to the surface and is detected by a receiving antenna. The reflected wave is stored digitally, and processed as a trace of signal versus amplitude. As the antennas are moved along a survey line, a series of traces are recorded at discrete points. When presented collectively, these traces display a profile of the subsurface. GPR surveys are an effective non-intrusive method of examining subsurface conditions, particularly beneath reinforced concrete floors or pads typically found in industrial settings. Whereas metal detectors such as the EM31 and EM61 generally yield a saturated response over reinforced concrete, GPR signals can easily penetrate through the concrete and into the underlying soils.

2.0 GEOPHYSICAL SURVEY GRID SET UP

Prior to commencement of the GPR survey, location grids were established over the areas of investigation. The grids consisted of survey lines typically spaced 10 feet apart, with orientations perpendicular to the suspected trend of the target being investigated. The survey grids were tied into physical features at the Site, including buildings, fences, and utility poles.

3.0 GEOPHYSICAL SURVEY RESULTS

The GPR data collected during survey were processed as trace plots for each area of investigation, and have been superimposed on detailed Site Plan figures. The GPR results for the diesel lines are presented on

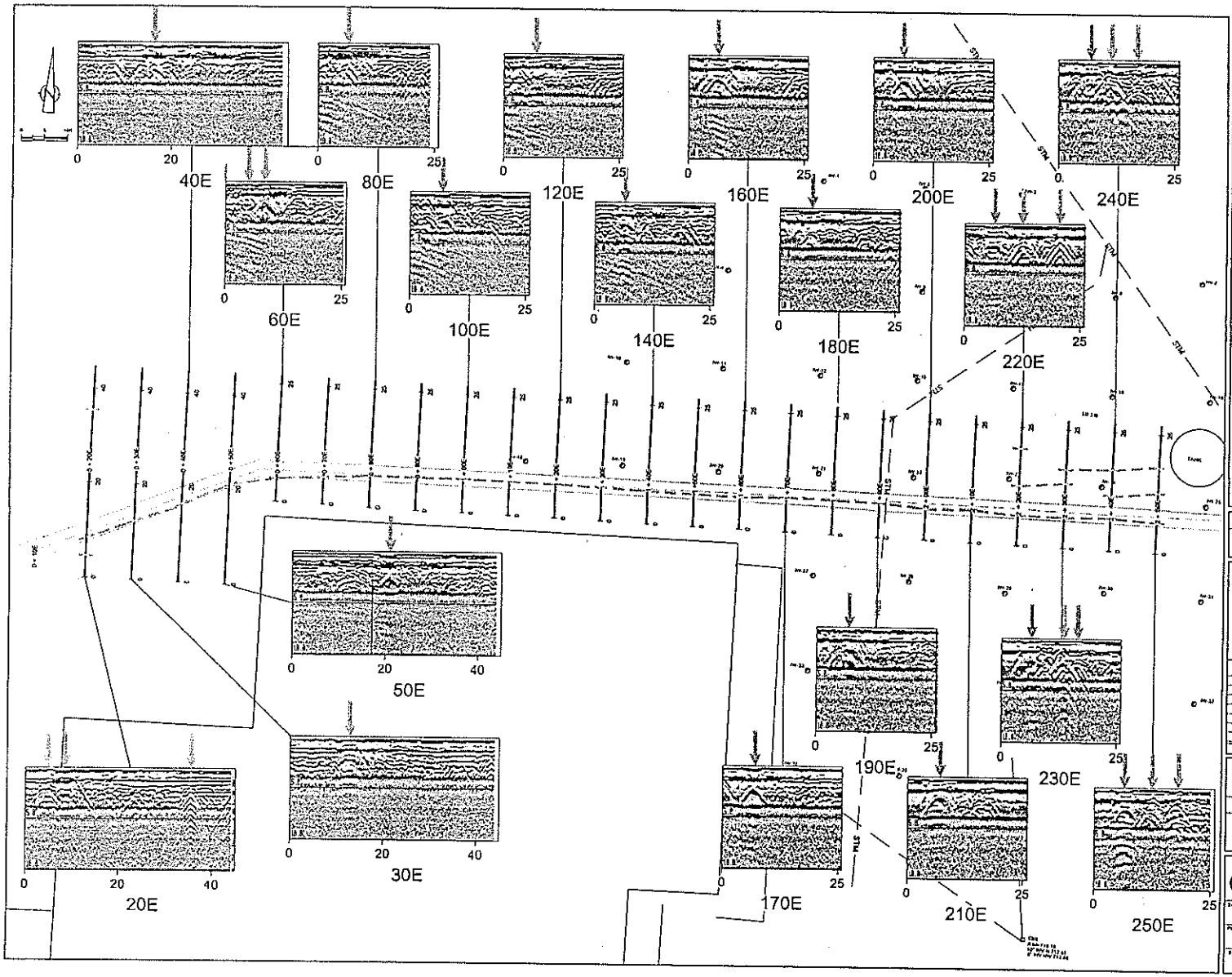
Plans 1 and 2, the sinkhole results are presented on Plan 3, and the survey results along Tyler Road are presented on Plan 4.

Review of Plan 1 indicates that a strong GPR reflector (colored orange) indicative of a buried utility was delineated along the north end of the existing (car wash) building. The buried utility appeared to be located beneath an approximately 3-foot wide reinforced concrete slab. This reflector was continuous, and extended 180 feet further to the east, near the vicinity of the existing fuel tank. Other reflectors of limited extent (colored green) were also delineated in this area, just west of the tank. The GPR signals over this portion of the Site yielded a depth of penetration of approximately 5 feet, which indicates that the sub-base beyond this depth is extremely conductive.

The GPR results presented on Plan 2 indicate that a suspected utility line was delineated over the southern portion of the surveyed area, and that no reflectors were found in the vicinity immediately south of the existing fuel tank. The GPR reflector over this area of the Site appeared to be coincident with a boundary between asphalt and concrete observed as the survey was being conducted. The radar signal depth of penetration was similar to that observed over the other suspected diesel line, namely approximately 5 feet.

The survey results for the suspected sinkhole presented in Plan 3 indicates that 5-foot grid line spacings were utilized in this area of investigation. The sinkhole was detected along only one line of survey (225 N), which indicates that this feature is of limited extent and depth.

The GPR survey results along Tyler Road are presented in Plan 4, and indicate that the depth of penetration for the GPR signals in this area was approximately 10 to 12 feet. This can be attributed to the sandy soils beneath this area of investigation, which do not attenuate GPR signals. The results presented on Plan 4 indicate that four GPR reflectors were delineated over this area of the Site. Two reflectors appear to be in alignment with 2 manholes in the vicinity, while the remaining two reflectors do not. It is recommended these suspected utility lines be further investigated, to assess their potential as migration pathways from the Site.



DRAFT

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY

DRAWING STATUS

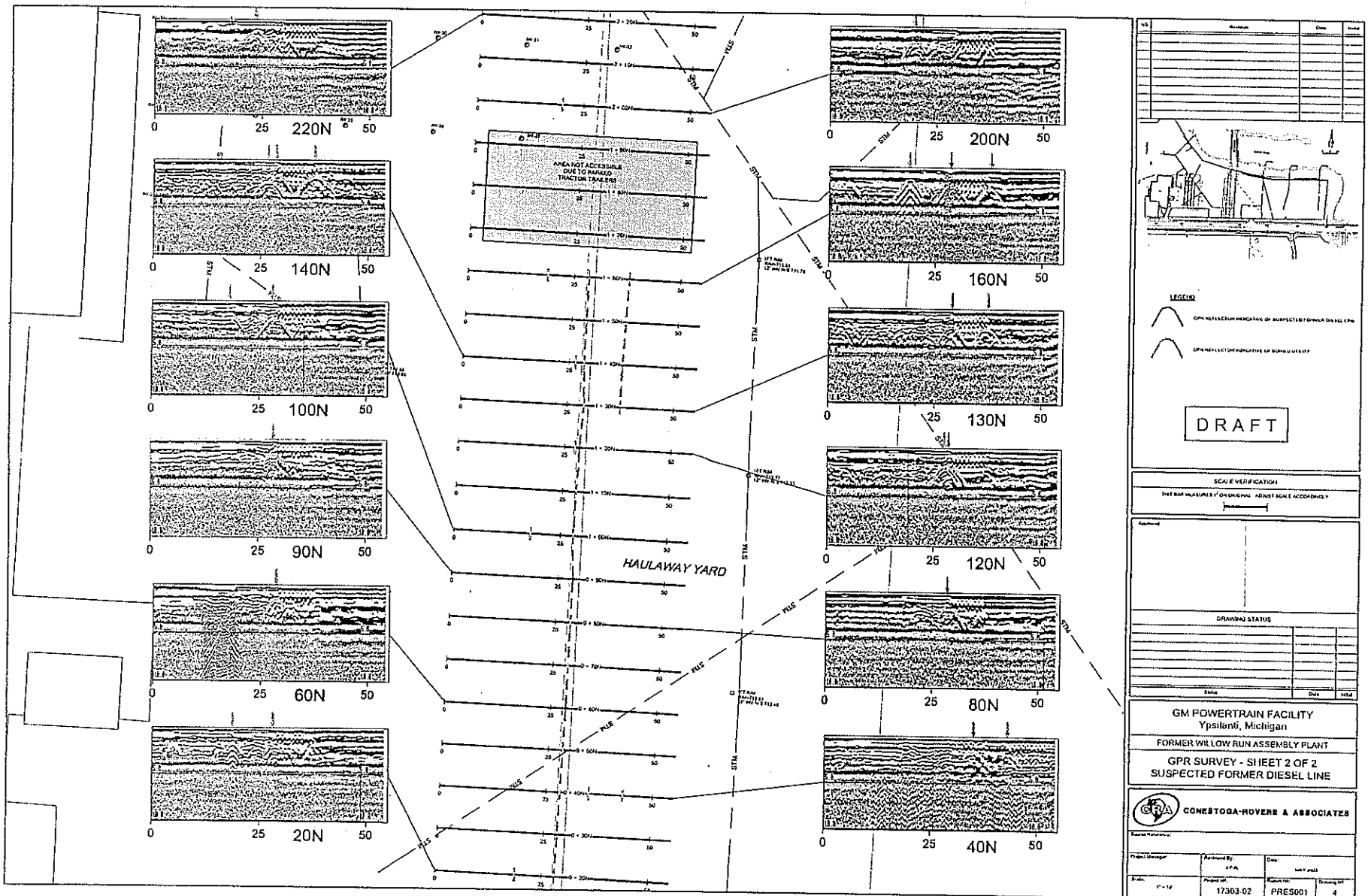
GM POWERTRAIN FACILITY
Ypsilanti, Michigan

FORMER WILLOW RUN ASSEMBLY PLANT

GPR SURVEY - SHEET 1 OF 2
SUSPECTED FORMER DIESEL LINE

CONESTOGA-ROVERS & ASSOCIATES

Project Manager:	Reviewed By: AP/N	Date: MAY 2023	
Scale: 1" = 40'	Project no: 17303-02	Report no: PAES001	Drawing no: 3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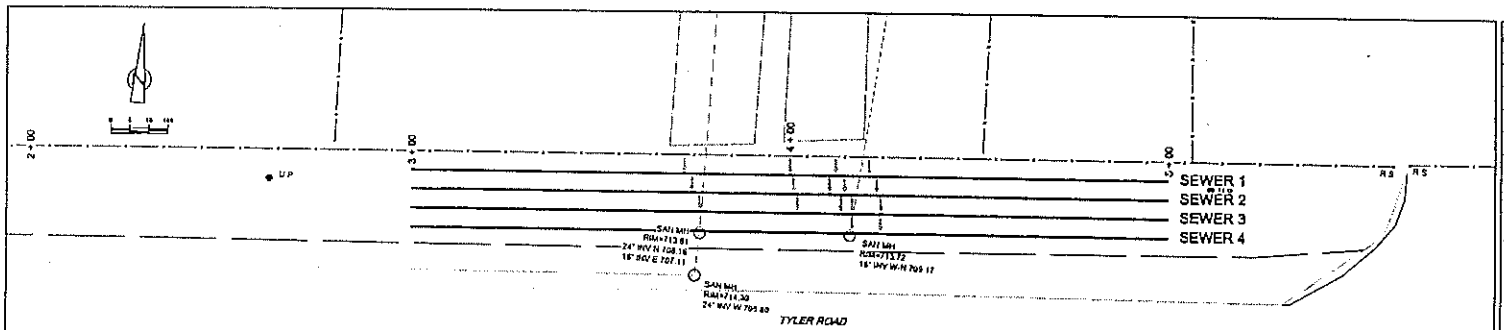
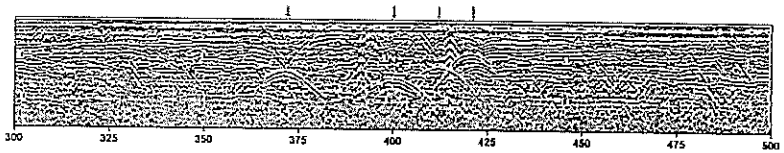
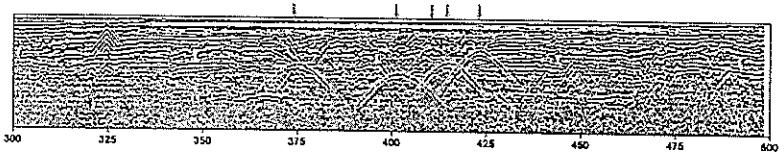
200N
140N
160N
100N
130N
90N
120N
60N
80N
20N
40N
HAULAWAY YARD
AREA NOT ACCESSIBLE DUE TO PARKED TRACTOR TRAILERS
STM
PLS
LEGEND
DRAFT
SCALE VERIFICATION
DRAWING STATUS
GM POWERTRAIN FACILITY
Ypsilanti, Michigan
FORMER WILLOW RUN ASSEMBLY PLANT
GPR SURVEY - SHEET 2 OF 2
SUSPECTED FORMER DIESEL LINE
CONESTOGA-ROVERS & ASSOCIATES
17303-02
PRES001
4





SEWER 1



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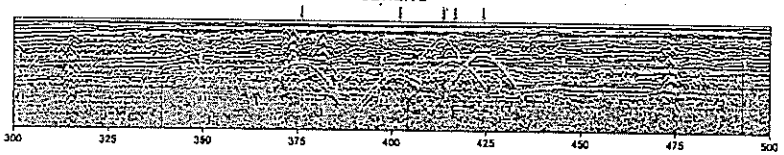

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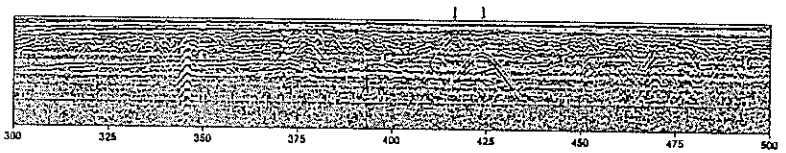

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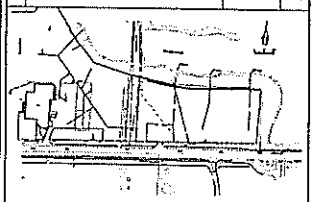


LEGEND

DRAFT

SCALE VERIFICATION

DRAWING STATUS

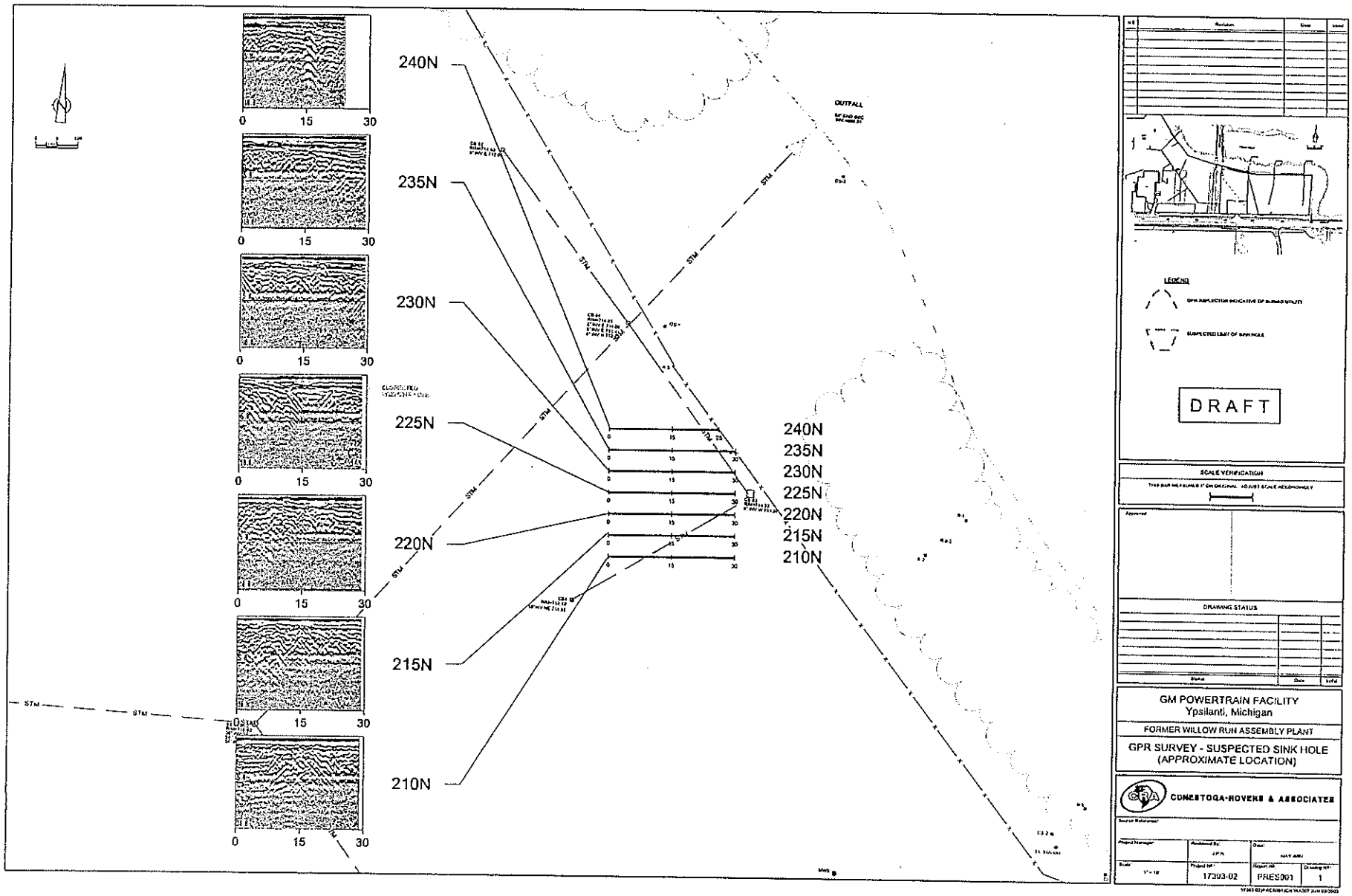
GM POWERTRAIN FACILITY
Ypsilanti, Michigan

FORMER WILLOW RUN ASSEMBLY PLANT

GPR SURVEY
SUSPECTED FORMER SEWER LINES

CONESTOGA-ROVERS & ASSOCIATES

Project Manager:	Reviewed By:	Date:	
Scale: 1" = 15'	Project No.: 17303-02	Report No.: PRES001	Drawing No.: 8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235N
230N
225N
220N
215N
210N
0 15 30
STM
OUTFALL
LEGEND
DRAFT
SCALE VERIFICATION
DRAWING STATUS
GM POWERTRAIN FACILITY
Ypsilanti, Michigan
FORMER WILLOW RUN ASSEMBLY PLANT
GPR SURVEY - SUSPECTED SINK HOLE
(APPROXIMATE LOCATION)
CONESTOGA-ROVERS & ASSOCIATES
17303-02
PRES001
1

APPENDIX C

LABORATORY ANALYTICAL REPORTS
(Not included in this report copy)

APPENDIX D

SOIL DISPOSAL MANIFESTS

482323

552843

7-8-03

GROSS: 93280 LBS 46.64 TONS CUYDS: 20
TARE: 49100 LBS 24.55 TONS
NET: 44180 LBS 22.09 TONS
ORIGIN: YPSILANTI

[illegible]
5800 Ha[illegible]
Wayne, Mi[illegible]
734[illegible]

COMMENT: 100605
OPERATOR: TOM

0037663 ENV09/20 13:36 07/08/2003

GENERAL MOTORS NATIONAL ACCOUNTS 152013
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48089

043T INDUSTRIAL SPEC DEBR 22.09

48

GROSS:138700 LBS 69.35 TONS CUYDS: 4
TARE: 51600 LBS 25.80 TONS
NET: 87100 LBS 43.55 TONS
ORIGIN: YPSILANTI

[illegible]
5800 Ha[illegible]
Wayne, Mi[illegible]
734[illegible]

COMMENT: 100604
OPERATOR: TOM

0037663 MIC106 13:18 07/08/2003

GENERAL MOTORS NATIONAL ACCOUNTS 15
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48089

043T INDUSTRIAL SPEC DEBR 43.55

NON-HAZARDOUS WASTE MANIFEST

NO. 100623

GENERATOR:

General Motors Corp
3301 Tyler East
Ypsilanti MI 48198

Transporter: All In-Oaks

Vehicle No.: 129

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile GMM101

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
150213	Contaminated soil and debris	Solid grey/brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

No. 10624

GENERATOR:

General Motors Corp
2901 Tyler Road
Ypsilanti, MI 48198
(Attn Chris Issa

Transporter: Ha-Ro Environmental Serv.

Vehicle No.: 09

Roll off Box 274131

Profile 6MM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
152013	contaminated soil and debris	Solid grey/brown	25 cyd Gross Wt.:
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO100622

GENERATOR:

General Motors Corp
2901 Tyler Road
Ypsilanti MI 48198
(Attn Chris 155A)

Transporter: Great Lakes

Vehicle No.: 799

AG/10ff Box 274610

Profile GMM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
52013	Contaminated Soil and debris	Solid Grey/Brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100621

GENERATOR:
General Motors Corp
2301 Tyler Road
Ypsilanti MI 48198
Attn Chris 1550

Transporter: BFI Environmental Services

Vehicle No.: 09

Box # 274590

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile GMM161

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
152013	contaminated soil and debris	solid grey brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100620

GENERATOR:
General Motors Corp
2301 Teller Road
Wpsilanti MI 48198

Transporter: Michigan Roads

Vehicle No.: 106
Truck + flat

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [X] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile GMMI601

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
15203	Contaminated soil and debris	solid grey brown	Gross Wt.: 40cy
			Tare Wt.:
			Net Wt.:

i

NON-HAZARDOUS WASTE MANIFEST

NO. 100619

GENERATOR:

General Motors Corp.
2301 Tyler Road
Ypsilanti MI 48198
(Attn Chris 1550

Transporter: Brooks Service

Vehicle No.: 93

Roll off Box 27 #175

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile GMMI61

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
152013	contaminated soil and debris	Solid Gray brown	Gross Wt.: 25 CY
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO100616

GENERATOR:

General Motors Corp
2901 Tyler Road
Ypsilanti MI 48198
(Attn: Chris Fea)

Transporter: JJTC

Vehicle No.: 40155

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [X] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Ref# GTM161

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
4/15/2013	contaminated soil and debris	solid brown	12 yds Gross Wt.:
			Tare Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100610

GENERATOR:

General Motors Corp
2901 Tyler Road
Ypsilanti MI 48198
(Attn: Chris Issa)

Transporter: Great Lakes

Vehicle No.: 799

Box 974610

Profile # GMM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
# 15 2013	contaminated soil and debris	Solid grey/brown	25 cyd Gross Wt.:
			Tare Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100611

GENERATOR:

General Motors Corp
2301 Tyler Road
Ypsilanti MI 48198
(Attn Chris 1559)

Transporter: All-IN-ONE

Vehicle No.: 129

PO# 274994

Profile 6MM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
~~#~~ 150013	Contaminated soil and debris	Solid Grey/brown	Gross Wt.: 25 cyd
150013 R0			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100612

GENERATOR:

General Motors Corp
2401 Tyler Road
Ypsilanti, MI 48198
(Attn Chris 155A)

Transporter: Great Lakes

Vehicle No.: 799

Roll off box: 274610

Profile # GMM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [X] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
#152013	Contaminated soil and debris	Solid dark grey/brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100613

GENERATOR:

General Motors Corp
4901 Tyler Road
Updated MI 48197
(Attn Chris 1550)

Transporter: Great Lakes

Vehicle No.: 099
truck + pup

Profile # GMM16K

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
# 153013	Contaminated soil and debris	Solid Grey/brown	Gross Wt.: 40 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100614

GENERATOR:

General Motors Corp
2901 Tyler Road
Ypsilanti, MI 48198
(Attn: Chris 155a)

Transporter: Great Lakes

Vehicle No.: 799

Rolloff box 27461D

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile GMM161

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
8/15/2013	Contaminated soil and debris	Solid grey/brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO.100615

GENERATOR:

General Motors Corp
2301 Tyler Road
Ypsilanti, MI 48198
(Attn Chris Lisa)

Transporter: Great Lakes

Vehicle No.: 799

R.O.# 274590

Profile 6mm161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
E 152013	Contaminated soil and debris	Solid grey/brown	Gross Wt.: 25 cyd
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100606

GENERATOR:

General Motors Corp
2301 Tyler Road
Flint MI 48558
ATTN (CARLS ISSA)

Transporter: Great Lakes

Vehicle No.: 799

Box # 74610

Profile # 6MM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
615013	Contaminated Soil with Water	Solid Grey/Brown	20 cyd Gross Wt.:
			— Tare Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100605

GENERATOR:

General Motors Corp
2301 Tyler Road
Ypsilanti, MI 48198
ATTN (Chris Lisa)

Transporter: H & M Environmental Services Box 4 / 274981

Vehicle No.: #09

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile # GMM161

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
# 15203	contaminated soil and debris	solid grey/brown	20 cy/roll off Gross Wt.:
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO 100604

GENERATOR:

General Motors Corp
3301 Tyler Road
Ypsilanti MI 48198
ATTN: Chris Issa

Transporter: Michigan Roads

Vehicle No.: #106 gravel trans tank & pup

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [X] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Profile #GMM161

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
#152013	contaminated soil and debris	solid grey/brown	40 cy trans Gross Wt.:
			Tare Wt.:
			Net Wt.:

NON-HAZARDOUS WASTE MANIFEST

NO. 100603

GENERATOR: General Motors Corporation
2901 Tyler Road
Ypsilanti, MI 48198
ATTN Chris Issa

Transporter: Bud's Service

Vehicle No.: 93

Box # ~~2045~~ 1 274577

Profile # GMM161

DELIVER TO:

- [ ] Autumn Hills RDF (Zeeland, MI)
- [ ] Waters Landfill (Frederic, MI)
- [ ] Eagle Valley RDF (Orion, MI)
- [ ] Glen's Sanitary Landfill (Maple City, MI)
- [ ] Hastings Sanitary Services (Hastings, MI)
- [ ] McGill Road Landfill (Jackson, MI)
- [ ] Northern Oaks RDF (Harrison, MI)
- [ ] Pine Tree Acres, Inc. (Lenox, MI)
- [ ] People's Landfill, Inc. (Birch Run, MI)
- [ ] Tri-City RDF (Carsonville, MI)
- [ ] Venice Park RDF (Lennon, MI)
- [ ] Westside RDF (Three Rivers, MI)
- [x] Woodland Meadows RDF (Van Buren, MI)

Company Responsible for Disposal Charges:

Approval No.	Name of Waste Stream	Physical Description (i.e., solid, color)	Volume
# 152013	Contaminated Soil and debris	Solid grey/brown	Gross Wt.: 20cy roll off
			Tare Wt.:
			Net Wt.:

(DRIVER: PLEASE SIGN BELOW)

482380

REFERENCE NO.

(PLEASE SIGN HERE)

GROSS: 80360 LBS 40.18 TONS YDS: 25
TARE: 51220 LBS 25.61 TONS
NET: 32140 LBS 16.07 TONS
ORIGIN: YPSILANTI

Cambridge Business Forms, Inc. • (847) 519-1800

Woodland Meadows RDF
5900 Hannan Road
Wayne, Michigan 48184
734/326-0993

COMMENT: 00621
OPERATOR: TOM

CUSTOMER NO.	TRUCK NO.	INITIALS	TIME	DATE	BATCH NO.
003766	01113925		14:15	07/09/2003	

CUSTOMER:

GENERAL MOTORS NATIONAL ACCOUNTS
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48088

MANIFEST NO. 132013

PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
043T	INDUSTRIAL SPEC DEBR	16.07	

57715

482

This is a Receipt Ticket

59

TOK-65

GROSS: 91500 LBS 45.75 TONS CUYDS: 25
TARE: 49100 LBS 24.55 TONS
NET: 42400 LBS 21.20 TONS
ORIGEN: YPSILANTI

COMMENT: 00621
OPERATOR: TOM

0037663 EN009/25 14:40 07/08/2003

GENERAL MOTORS NATIONAL ACCOUNTS 1520
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48088

043T INDUSTRIAL SPEC DEBR 21.20

482584

553084

GROSS: 141940 LBS 70.97 TONS CUYDS: 40
TARE: 63040 LBS 31.52 TONS
NET: 78900 LBS 39.45 TONS
ORIGIN: YPSILANTI

COMMENT: 100613
OPERATOR: TOM

0037663 GRE093 08:11 02/09/2003

GENERAL MOTORS NATIONAL ACCOUNTS 152013
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48088

043T INDUSTRIAL SPEC DEBR 39.45

(ORIGINAL)

48244

5529

GROSS: 99040 LBS 46.52 TONS CUYDS: 25
TARE: 49100 LBS 24.55 TONS
NET: 43940 LBS 21.97 TONS
ORIGIN: YPSILANTI

COMMENT: 100624
OPERATOR: TOM

0037663 ENV09/25 16:07 07/08/2003

GENERAL MOTORS NATIONAL ACCOUNTS 152013
12200 E 13MILE RD.
SUITE 120
WARREN, MI 48089

043T INDUSTRIAL SPEC DEBR 21.97

48242

Woodland Meadows RDF
5900 Hannan Road
Wayne, Michigan 48184
734/326-0993

APPENDIX H.3

CONSTRUCTION COMPLETION REPORT
PAOC 18 INTERIM ACTION RESPONSE

CONSTRUCTION COMPLETION REPORT

PAOC-18 INTERIM RESPONSE ACTIONS

COMPANY VEHICLE OPERATIONS AREA
YPSILANTI, MICHIGAN

REVISED JANUARY 2006

JANUARY 2005
REF. NO. 17303 (9)

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LIST OF ACRONYMS

AMSL	Above Mean Sea Level
ASTM	American Society for Testing and Materials
bgs	Below Ground Surface
CRA	Conestoga-Rovers & Associates, Inc.
CVO	Company Vehicle Operations
DNAPL	Dense Non-Aqueous Phase Liquid
EOC	Extent of Contamination
ENCORE	Environmental Corporate Remediation Company, Inc.
EZ	Exclusion Zone
GM	General Motors Corporation
Hardman	Hardman Construction, Inc.
IRA	Interim Response Actions
MDEQ	Michigan Department of Environmental Quality
O&M	Operations and Maintenance
PAOC	Potential Area of Concern
PPE	Personal Protective Equipment
QEKGS	QEK Global Systems, Inc.
Site	GM Company Vehicle Operations Area
SOW	Scope of Work

1.0 INTRODUCTION

1.1 GENERAL

Conestoga-Rovers & Associates, Inc. (CRA) prepared this Construction Completion Report (Report) to document the Interim Response Actions (IRA) completed for Potential Area of Concern (PAOC) 18 within the General Motors Corporation (GM) Company Vehicle Operations (CVO) Area (Site). The Site is located at 2901 Tyler Road in Ypsilanti, Michigan, as shown in Drawing G-1 of the record drawings (Appendix A). A plan of the sheetpile wall installation at PAOC 18 is presented on Drawing G-2 of the record drawings. The IRA consisted of:

- delineation of dense-non aqueous phase liquids (DNAPL) within PAOC 18;
- Site preparation including brush clearing, tree removal, temporary fence removal, and Site trailer setup;
- sheetpile installation at PAOC 18 adjacent to the south shore of Tyler Pond and centered near the stormwater discharge labeled as Outfall #12;
- diversion of stormwater runoff from Outfall #12;
- capping of the slope above the sheetpile installation using clay and topsoil; and,
- Site restoration and demobilization.

Construction activities were completed between October 14, 2004 and November 17, 2004 within the proposed project schedule (CRA, October 5, 2004). The IRA was completed for the Environmental Corporate Remediation Company, Inc. (ENCORE), a wholly owned subsidiary of GM. The Site is owned by GM. Site work was conducted under the direction of ENCORE.

1.2 BASIS FOR REMEDIAL ACTION

A Phase III Extent of Contamination (EOC) Study Addendum conducted in the spring and summer of 2004 confirmed the presence of DNAPL within PAOC 18 and several other constituents in both soil and groundwater exceeding applicable Michigan Act 451 Part 201 Industrial/Commercial Criteria (CRA, April 2004). Based on the proximity of the DNAPL with respect to Tyler Pond, ENCORE directed an expedited IRA to contain the material and prevent a release to the pond.

1.3 REPORT ORGANIZATION

This Report is presented in the following sections:

1.0 Introduction
2.0 Scope of Work
3.0 Project Management
4.0 Health and Safety
5.0 Project Quality Assurance
6.0 Construction Activities
7.0 Recommended Operation and Maintenance Activities
8.0 References

Record Drawings are provided in Appendix A, while Submittals are presented in Appendix B.

2.0 SCOPE OF WORK

2.1 DNAPL DELINEATION

A delineation investigation of the DNAPL within PAOC 18 was conducted between May and August of 2004 so an adequate IRA could be designed for the Site (CRA, September 13, 2004).

2.2 SITE PREPARATION

Site preparation included the following activities:

- equipment mobilization;
- Site trailer set up;
- clearing of brush and trees surrounding PAOC 18;
- temporary removal of an existing fence across PAOC 18; and,
- decontamination as needed;

Site preparation activities were completed between October 7, 2004 and October 13, 2004.

2.3 SHEETPILE INSTALLATION

Sheetpile installation included the following activities:

- mobilization of sheet pile contractor (Hardman Construction, Inc. [Hardman]) equipment, facilities and personnel;
- installation of silt fencing;
- temporary fence removal;
- temporary disconnection of overhead power lines;
- decontamination as needed;
- installation of permanent sheet pile;
- placement of a six inch clay cap within the interior side of the sheetpile installation;
- placement of topsoil, grading and seeding; and
- demobilization of sheet pile equipment and personnel (Hardman).

During the sheetpile installation, an Exclusion Zone (EZ) was placed around the active work area using plastic barrier fencing. Only authorized personnel were allowed to enter the EZ and all personnel entering the EZ were required to wear appropriate personal protective equipment (PPE) as defined in the Site Health and Safety Plan (CRA, October 2004).

Sheet pile installation was completed between October 14, 2004 and October 21, 2004. Other activities were completed between October 7, 2004 and November 17, 2004.

2.4 OUTFALL #12 DIVERSION

Historically, Site stormwater was transferred via a pump station to a wastewater treatment plant located at the Former Assembly Plant just west of the Site. This wastewater treatment plant is no longer in operation. Since the decommissioning of the former wastewater treatment plant, stormwater has directly discharged from the CVO parking lot to Tyler Pond through several outfall points, including Outfall #12.

Since Outfall #12 is situated within the area of the IRA sheetpile installation, it was decided that stormwater discharges to Outfall #12 should be diverted to Outfalls #13, and #14. It was concluded that Outfalls #13 and #14 are of sufficient size and capacity to accept the additional flow generated by removing Outfall #12 (CRA, October 27, 2004). The diversion of Outfall #12 was completed in the area shown on Drawing G-2, which incorporated the following activities:

- installing a permanent plug to block the northern and western storm sewer lines at Outfall #12; and,
- installing a permanent plug at the next manhole west of Outfall #12, in order to prevent stormwater backflow from Outfall #11.

The diversion of stormwater discharges away from Outfall #12 was completed on November 3, 2004.

2.5 SITE CLEANUP AND DEMOBILIZATION

Site cleanup and demobilization included the following activities:

- installation of a new 6-foot chain linked barbed wire fence along the northern perimeter of the Site parking lot within PAOC 18;
- demobilization of sheet pile contractor (Hardman) equipment, facilities and personnel;
- restoration of an electrical conduit associated with overhead lighting near PAOC 18;
- sweeping the parking lot within PAOC 18; and,
- decontaminating and demobilizing equipment.

Site cleanup and demobilization activities were completed between November 15, 2004 and November 17, 2004.

Equipment decontamination was conducted in accordance with the Site Health and Safety Plan (CRA, October 2004). The only piece of equipment requiring decontamination during the sheetpile installation was a backhoe.

The backhoe was decontaminated by placing the backhoe bucket over a designated roll-off box for decontamination waste. While positioned over the roll-off box, the backhoe bucket was dry scrubbed with a brush, pressured washed, and cleaned with a 50/50 mixture of water and Simple Green®.

PPE for Site personnel was provided in accordance with the Site Health and Safety Plan (CRA, October 2004). PPE required during the sheetpile installation activities consisted of Level D items including hard hats, safety glasses, ear plugs, tyvek coveralls, leather gloves, and steel toed boots. Working conditions were monitored by the designated health and safety officer for appropriate PPE requirements.

3.0 PROJECT MANAGEMENT

3.1 CONSTRUCTION MANAGEMENT

The conceptual IRA design and final design were completed by CRA. CRA provided construction oversight and documentation of the IRA activities conducted at the Site. Responsibilities included communication with GM and ENCORE, and inspection of contractor activities to ensure that the IRA was properly constructed and implemented.

CRA Services was retained by ENCORE as the general contractor for completion of the IRA activities. General services performed by CRA Services at the Site included preparation of the Site for construction activities, construction of erosion controls, and all other general activities. CRA Services retained the following subcontractors to perform specialized remedial tasks:

i) Doug's Tree Care Service, Inc. from Waterford, Michigan to complete the clearing and grubbing within the sheet pile installation area;
ii) Hardman from Ludington, Michigan to complete the sheet pile installation; and,
iii) Nationwide Fence and Supply Co., from Chesterfield, Michigan to complete the installation of new perimeter fence.

3.2 PROJECT DOCUMENTATION

A daily Site logbook was maintained by CRA, as well as weekly construction meetings and meeting summary memorandums (submitted to ENCORE), for documentation of Site activities. Records that were maintained on a daily basis included weather conditions, on-Site personnel, and remedial activities conducted. Mr. Russel Aylsworth recorded CRA's Health and Safety information during the IRA. Copies of the project documentation and reporting are maintained at CRA's office in Plymouth, Michigan.

Record Drawings documenting installed conditions were maintained by CRA throughout the project. Final Record Drawings are presented in Appendix A.

3.3 SITE SECURITY

QEK Global Systems, Inc. (QEKGS) and Site personnel maintained Site security throughout the duration of the IRA activities. A Site sign in sheet was maintained in the

Site trailer. A six-foot high chain link fence topped with barbed wire surrounds the entire Site. The new fencing now encloses the Site parking lot and prevents direct access to the sheetpile installation from the Site parking lot. Drawing G-2 shows the new fence line. The entrance gate was closed and locked when the Site was not occupied.

An additional security guard was provided daily by QEKGS between the hours of 5:30 PM and 6:00 AM to maintain 24-hour security during the IRA activities.

4.0 HEALTH AND SAFETY

Site personnel completed the IRA in accordance with the Site Health and Safety Plan (CRA, October 2004). A daily safety meeting was conducted before initiating work activities. GM performed an internal health and safety audit at the beginning of the IRA. No unsafe work practices were observed. No health and safety related issues or incidents occurred during the completion of IRA at the Site.

5.0 PROJECT QUALITY ASSURANCE

5.1 SHEETPILING

The sheetpiling meets American Society for Testing and Materials (ASTM) Standard A6 - Standard Specification for General Requirements for Sheetpiling and A572 - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel (Skyline Steel Corporation, September 2003).

CRA provided continuous oversight and documentation of the IRA activities to ensure that the sheetpiling was installed in accordance with CRA's specifications.

Submittals reviewed and approved by CRA for quality assurance include the sheetpile manufacturer's data sheets (i.e. mill specifications), documentation covering the quality and source of the clay backfill material, and documentation covering the quality and source of the topsoil cover material installed during the IRA activities (Appendix B).

6.0 CONSTRUCTION ACTIVITIES

Documentation of Site construction is provided in the Record Drawings, which are presented in Appendix A.

6.1 SHEETPILING

The sheet piles were installed in accordance with the design specifications (CRA, October 5, 2004). The sheet pile was driven to an elevation (top of pile) of 701.5 feet above mean sea level (AMSL) along Tyler Pond, 714 feet AMSL along the top of the east sheetpile wall, and 712 feet AMSL along the top of the west sheetpile wall. This corresponds to bottom of sheetpile elevations of 691.6 feet AMSL. Drawing G-2 presents the sheet pile terminal elevations and Drawing G-3 presents cross sections of the sheetpile area. Drawing G-2 presents surveyed sheetpile elevations as installed and Drawing G-4 presents design profiles for the sheetpile and wing walls. A small area at the top of the west wall was excavated in order to drive the sheet pile to the determined depth of the clay layer. The sheet piles were cut to stick up approximately 2 feet above grade.

6.1.1 SHEET PILE INSTALLATION

The sheetpile installation consisted of 24-inch, "Z" shaped AZ-18 sheet piles from Skyline Steel Corporation installed utilizing a 100-ton crane with an addition of a vibratory hammer. Hardman monitored each sheet during installation for plumbness and alignment with a level. The plumbness and alignment was necessary to ensure the proper installation of the sheet piles. The sheet pile alignment was confirmed through surveys. Sheet piling elevations are provided on Drawing G-2 in the Record Drawings in Appendix A.

Every other sheet was welded together to create a watertight seal at these joints. Two sheets were driven into place at a time, which is the maximum width that could be driven at one time. A bentonite paste was applied to the non-welded joints of the sheet piles before installation to create a watertight seal between these joints. The application of the seal consisted of using a trowel to apply the bentonite paste while sheets layed horizontal. The integrity of the sheet piling seal was checked by visual inspection throughout the installation of the sheet piles.

6.2 EARTHWORK ACTIVITIES

Earthwork activities performed at the Site included grading the interior of the sheetpile installation for the placement of a six-inch clay cap and surface restoration with topsoil.

7.0 REFERENCES

ASTM, 2004. *A572/A572M-04, Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.* ASTM International

ASTM, 2004. *A6/A6M-04b Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling.* ASTM International

CRA, 2004. *Health and Safety Plan for REALM/ENCORE Participants, Former Willow Run Assembly Plant Company Vehicle Operations Area.* October.

CRA,2004. *Impervious Barrier Wall, IRA Design and Construction Work Plan.* Memorandum from Fred W. Blickle to Ken Richards. October 5.

CRA,2004. *Interim Status Update – PAOC18, DNAPL Investigation and IRA* Memorandum from Fred W. Blickle to Ken Richards. September 13.

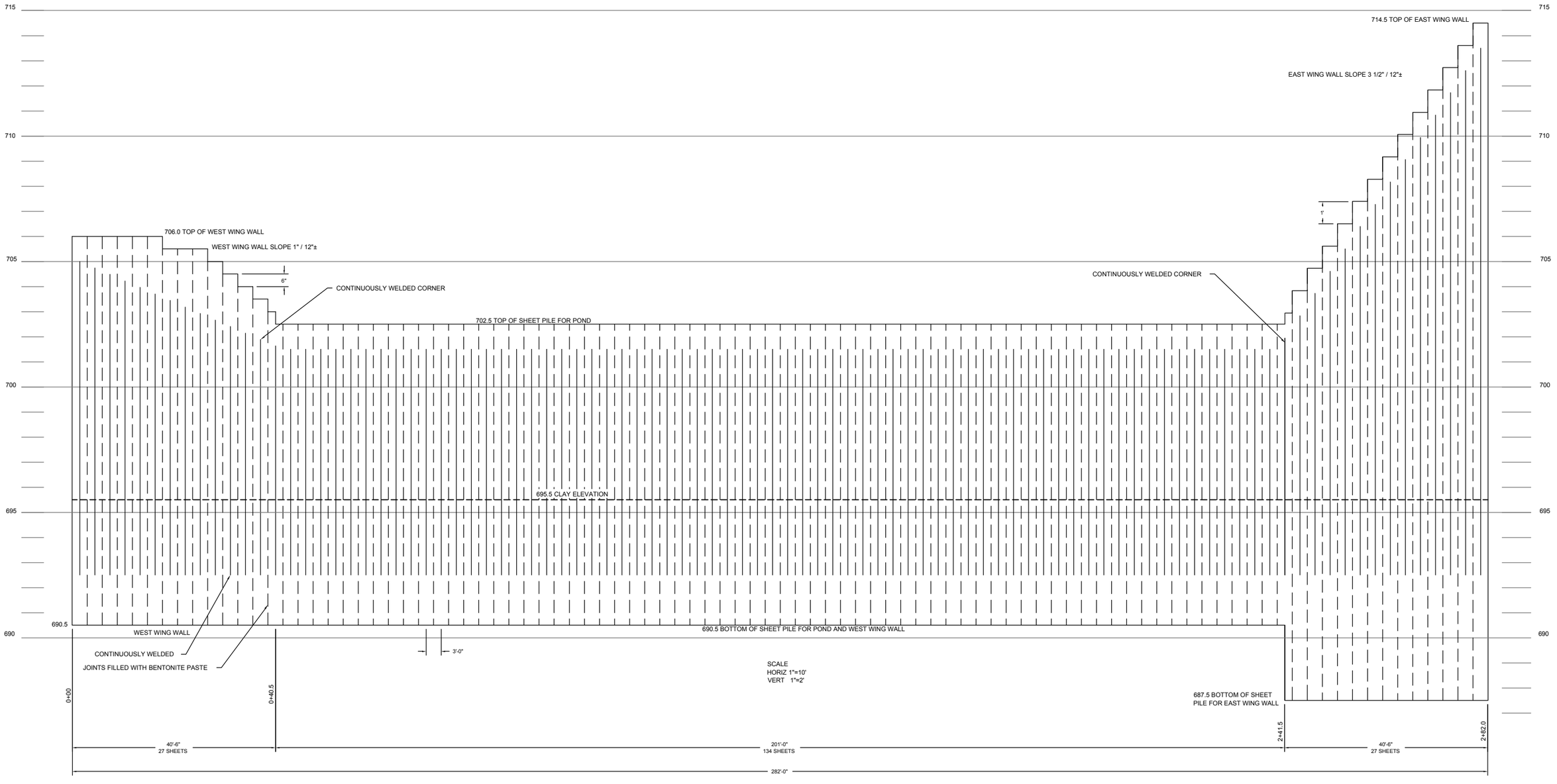
CRA,2004. *Permanent Sewer Plug Locations.* Memorandum from Beth Landale to Matt Abdallah. October 27.

CRA, 2004. *Supplemental Phase III EOC Work Plan – Addendum No. 1, Company Vehicle Operations Area.* April

Skyline Steel Corporation, 2003. *AZ Hot Rolled Steel Sheet Piling Data Sheet.* September

APPENDIX A

RECORD DRAWINGS



NOTE
THESE PILES HAVE BEEN LAID OUT BASED ON THE SHEET PILE WIDTH OF 18"

SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

No	Revision	Date	Initial

Approved

FORMER WILLOW RUN ASSEMBLY PLANT
YPSILANTI, MICHIGAN

COMPANY VEHICLE OPERATIONS

SHEET PILE PROFILES
AND WING WALLS

CRA ENGINEERING, INC.

Source Reference:			Date: OCT 2004
Project Manager: FWB	Reviewed By: FWB	Designed By: MG	Drawn By: ER
Scale: AS SHOWN	Project No: 17303-10	Report No: 009	Drawing No: FIG G-4

17303-10/009/GN_DF004 JAN 13/2006

APPENDIX B

SUBMITTALS AND SUBMITTAL LOG

Reference No. 17303

SUBMITTAL LOG

CONTRACT FOR: **Consetoga-Rovers and Associates and Inc.** CONTRACT NO.: _____

OWNER: **General Motors Corporation** CONTRACTOR: _____

Note all dates are Month-day-year

					CRA				Action						
Spec Section No.	New Sub	Resubmit	Item Description	Submittal No.	Date Rec'd	To	Date Sent	Date Returned	Approved	Approved As Noted	Not Subject To Review	No Action Required	Revise/ Resubmit	Reject/ Resubmit	Approved As Noted / Resubmit
	x		Sheet Piling Specs	017303-001	10-1-04	M. Gentner	10-1-04	10-4-04		X (asked to specify steel grade)					
	x		H&S Letter and Certificates	017303-002	10-6-04	B. Landale	10-6-04	10-6-04					X		
	x		Subcontractor Pre-Qual Form	017303-002	10-6-04	B. Landale	10-6-04						X (additional info needed)		
		x	H&S Letter and Missing certificate	017303-002	10-12-04	B. Landale	10-14-04	10-14-04	X						
	x		Clay Backfill Source	017303-003	10-13-04	B. Landale	10-14-04	10-14-04	X						
		x	Subcontractor Pre-Qual Form – add info	017303-002	10-20-04	B. Landale	10-20-04	10-22-04	X						
	x		Top Soil Source	017303-004	10-22-04	F. Blickle	10-22-04	10-22-04						X	
		x	Top Soil Source	017303-004A	11-12-04	B. Landale	11-12-04	11-12-04	X						

CONESTOGA-ROVERS & ASSOCIATES

4141 Davis Creek Court
Kalamazoo, Michigan 49001-0838
Telephone: (269) 344-1230 Fax: (269) 344-8558
www.CRAworld.com

TRANSMITTAL

DATE: 10/06/04

REFERENCE NO.: 017303.10.20

PROJECT NAME: Former Willow Run Assembly/ CVO Facility

TO: Beth Landale
Conestoga-Rovers and Associates, Inc.
1880 Assumption Street
Windsor, Ontario N8Y1C4, Canada
Phone: (519)-966-9886 FAX:

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☐ Final
- ☒ Other Submittal 017303-002

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other PDF

QUANTITY	DESCRIPTION
1	Hardman letter regarding health and safety (1-page)
1	Key personnel Fit to work non-injury status report (4-pages)
1	HAZWOPER 8-hour refresher certificates (4-pages)
1	Sub-contractor preqaulification form (12-pages)

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
Attached submittal for your review and approval

SUBMITTAL REVIEW

This review is for the sole purpose of ascertaining conformance with the general design concept, and in no way constitutes approval of the detail design inherent in the shop drawings, responsibility for which remains with the contractor submitting same.

- ☒ REVIEWED changes submitted/Rec'd 10/20
- ☐ REVISE AS NOTED
- ☐ REVISE AND RESUBMIT

SUBMISSION NO. 002
PROJECT NO. 17303
BY Beth Landale
DATE 10-22-04

CONESTOGA - ROVERS & ASSOCIATES

Copy to: Correspondence File

Completed by: Matthew S. Abdallah [Please Print]

Signed: Matthew S. Abdallah

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

242 South Brye Road
Ludington, MI 49431

HARDMAN
CONSTRUCTION, INC.

Phone (231) 845-1236
FAX (231) 845-0422

September 30, 2004

CONESTOGA-ROVERS & ASSOCIATES
14496 Sheldon Road, Suite #200
Plymouth, MI 48170

Attention: Matt Abdullah

RE: Tyler Pond – Willow Run

Dear Matt:

In regards to the Tyler Pond Project, Hardman Construction, Inc. will abide by CRA Services Health and Safety Plan for the duration of this project.

If you require anything further, please do not hesitate to call.

Very truly yours,
HARDMAN CONSTRUCTION, INC.

Ted C. Kroeze, Project Manager

CC: Scott Mitchell, Supt.
1089 C

EMERGENCY RESPONSE CONSULTING INC.

Certificate of Training

This certifies that

Greg Mitchell

has successfully completed 8 hours of instruction in

HANDLING HAZARDOUS MATERIALS - REFRESHER
per 29 CFR 1910.120

Prepared and conducted by Emergency Response Consulting, Inc.

Ross Kuhr
Trainer

April 2, 2004
Date of Completion

Emergency Response Consulting, Inc., is an emergency response training company located in Ludington, Michigan specializing in firefighting and hazardous materials consulting and training.

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LITHO. IN U.S.A.

EMERGENCY RESPONSE CONSULTING INC.

Certificate of Training

This certifies that

Jerry Starky

has successfully completed **8** hours of instruction in

HANDLING HAZARDOUS MATERIALS - REFRESHER
per 29 CFR 1910.120

Prepared and conducted by Emergency Response Consulting, Inc.

Ron Kusor
Trainer

April 2, 2004
Date of Completion

Emergency Response Consulting, Inc., is an emergency response training company located in Ludington, Michigan specializing in firefighting and hazardous materials consulting and training.

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LITHO. IN U.S.A.

EMERGENCY RESPONSE CONSULTING INC.

Certificate of Training

This certifies that

Scott Mitchell

has successfully completed **8** hours of instruction in

HANDLING HAZARDOUS MATERIALS - REFRESHER
per 29 CFR 1910.120

Prepared and conducted by Emergency Response Consulting, Inc.

Ross Kusor
Trainer

April 2, 2004
Date of Completion

Emergency Response Consulting, Inc., is an emergency response training company located in Ludington, Michigan specializing in firefighting and hazardous materials consulting and training.

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per 29 CFR 1910.120

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LITHO IN U.S.A.

Claim Number:

Concentra Medical Centers (MI)

28196 Schoolcraft Livonia, MI 48150
Phone: (734) 425-4600 Fax: (734) 425-1185

Service Date: 05/19/2004

Non-Injury Status Report

Patient: Mitchell, Gregory
SSN: 374-72-4823
Address: P.O Box 152
REED CITY, MI 49677
Home: (231) 846-0487
Work: **Ext.:**

Employer Location: Hardman Construction Inc
Address: 242 South Brye Rd
Ludington, MI 49431
Auth. by:

Contact: Bill Lynn
Role: Office Manager
Phone: (616) 845-1236 **Ext.:** 3227
Fax: (616) 845-0422

This Visit:

Time In: 05:50 pm **Time Out:** 08:19 pm **Visit Type:** New

Baseline Physical

CBC w/diff
Chem 25
Chest X-ray 1 view
DIP/TET
Non Regulated UDS
Physicals - Pre-Placement
Pulmonary Function Test
Respirator Questionnaire Review
U/A Gross
Audiogram

Result Status:

No medical restrictions

Remarks:

Claim Number:

Concentra Medical Centers (MI)

28196 Schoolcraft Livonia, MI 48150
Phone: (734) 425-4600 Fax: (734) 425-1185

Service Date: 05/19/2004

Non-Injury Status Report

Patient: Starkey, Jerry
SSN: 384-68-1725
Address: 11199 South 200th
LEROY, MI 49655
Home: (231) 832-2695
Work: **Ext.:**

Employer Location: Hardman Construction Inc
Address: 242 South Brye Rd
Ludington, MI 49431
Auth. by:

Contact: Bill Lynn
Role: Office Manager
Phone: (616) 845-1236 **Ext.:** 3227
Fax: (616) 845-0422

This Visit:

Time In: 05:50 pm **Time Out:** 08:25 pm **Visit Type:** New

Baseline Physical

Physicals - Pre-Placement
Pulmonary Function Test
Respirator Questionnaire Review
U/A Gross
Audiogram
CBC w/diff
Chem 25
Chest X-ray 1 view
Non Regulated UDS

esult Status:

No medical restrictions

Remarks:

Claim Number:

Concentra Medical Centers (MI)

28196 Schoolcraft Livonia, MI 48150
Phone: (734) 425-4600 Fax: (734) 425-1185

Service Date: 05/19/2004

Non-Injury Status Report

Patient: Brown, David P.
SSN: 378-90-1551
Address: 14409 Oakleaf Tr
LINDEN, MI 48451
Home: (810) 735-5136
Work: **Ext.:**

Employer Location: Hardman Construction Inc
Address: 242 South Brye Rd
Ludington, MI 49431
Auth. by:

Contact: Bill Lynn
Role: Office Manager
Phone: (616) 845-1236 **Ext.:** 3227
Fax: (616) 845-0422

This Visit:

Time In: 05:50 pm **Time Out:** 07:31 pm **Visit Type:** New

Baseline Physical

CBC w/diff
Chem 25
Chest X-ray 1 view
Non Regulated UDS
Physicals - Pre-Placement
Pulmonary Function Test
Respirator Questionnaire Review
U/A Gross
Audiogram

esult Status:

No medical restrictions

Remarks:

Claim Number:

Concentra Medical Centers (MI)

28196 Schoolcraft Livonia, MI 48150
Phone: (734) 425-4600 Fax: (734) 425-1185

Service Date: 05/19/2004

Non-Injury Status Report

Patient: Mitchell, Scott
SSN: 374-72-2820
Address: 13075 Sugerbush
LEROY, MI 49655
Home: (231) 768-4777
Work: Ext.:

Employer Location: Hardman Construction Inc
Address: 242 South Brye Rd
Ludington, MI 49431
Auth. by:

Contact: Bill Lynn
Role: Office Manager
Phone: (616) 845-1236 Ext.:3227
Fax: (616) 845-0422

This Visit:

Time In: 05:50 pm **Time Out:** 08:27 pm **Visit Type:** New

Baseline Physical

Physicals - Pre-Placement
Pulmonary Function Test
Respirator Questionnaire Review
U/A Gross
CBC w/diff
Chem 25
Chest X-ray 1 view
DIP/TET
Non Regulated UDS
Audiogram

esult Status:

No medical restrictions

Remarks:

242 South Brye Road
Ludington, MI 49431

HARDMAN CONSTRUCTION, INC.

Phone (231) 845-1236
FAX (231) 845-0422

RECEIVED
SEP 3 0 2004
CRA, INC.

September 29, 2004

CRA SERVICES
4141 Davis Creek Court
Kalamazoo, MI 49001

Attention: Wayne Bauman

RE: Tyler Pond – Willow Run

Dear Wayne:

Enclosed for your review is our Subcontractor Pre-qualification with attachments. Please call me if you have questions or need clarification on any of the attached. Thank you.

Sincerely,

HARDMAN CONSTRUCTION, INC.

Judy Drier, Secretary

jd

SUBCONTRACTOR PRE-QUALIFICATION FORM
PART 1

SUBMIT COMPLETED FORM TO:

FIRM NAME/BUSINESS ADDRESS: HARDMAN CONSTRUCTION, INC.
242 South Brye Road
Ludington, MI 49431

PRINCIPAL OFFICE ADDRESS: Same

TYPE OF OWNERSHIP: Corporation S-CORPORATION Partnership Individual ☐ Other ☒xx

TYPE OF SERVICE (file separate form for each Type of Service):

Drilling ☐ Surveying ☐ Analytical ☐ Consulting ☐

☒ Other (please specify) Construction

CONTACT PERSONS: Ted Kroeze

Names of no more than two principals to contact:

	Name	***Title***	***Telephone No.***
1.	Bruce A. Lowing	President	231-845-1236
2.	Todd M. Schrader	Engineer/P.M.	231-845-1236

IDENTIFICATION/CERTIFICATION: I certify that the information provided herein is true and sufficiently complete so as not to be misleading.

Signature: William Lynn Date: 09-29-04

Typed Name and Title: William Lynn, Office Manager/Safety Officer

Approved by: _____ Contracts Manager/Date _____ Technical Representative/Date

VENDOR PRE-QUALIFICATION FORM
PART 2

1. ORGANIZATION:

1.1 How many years has your organization been in business as a provider of the Type of Service?

25 Years

1.2 How many years has your organization been in business under its present name?

25 Years

1.2.1 Under what other or former names has your organization operated?

N/A

1.3 What is the name of your parent company, if any?

N/A

1.4 Attach a copy of your corporate organizational chart.

1.5 If your organization is a corporation, answer the following:

Date of incorporation: January 17, 1979

State/Province of incorporation: Michigan - USA

President's Name: Bruce A. Lowing

~~V~~P Name(s): C.E.O. Al Hardman

Secretary's Name: Carole J. Hardman

Treasurer's Name: Carole J. Hardman

1.6 If your organization is a partnership, answer the following:

Date of organization:
Type of partnership (if applicable):
Name(s) of general partner(s):

1.7 If your organization is individually owned, answer the following:

Date of organization:
Name of owner:

1.8 If the form of your organization is other than those listed above, describe it and name the principals.

2. LICENSING:

2.1 List jurisdictions in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

Pre-Qualified - Michigan, INdiana and Wisconsin

2.2 List jurisdictions in which your organization's partnership or trade name is filed.

3. EXPERIENCE:

3.1 List the categories of work that your organization normally performs with its own forces.

Heavy Construction
Bridges
Sewer
Augercast Piling
Sheet Piling - Earth Retention

3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

None

3.2.1 Has your organization failed to complete any work awarded to it?
No [xx] Yes [ ]

3.2.2 Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or its officers?
No [xx] Yes [ ]

3.2.3 Has your organization filed any law suits or requested arbitration with regard to contracts within the last 5 years?
No [xx] Yes [ ]

3.3 Within the last 5 years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a contract? (if the answer is yes, please attach details.)

No

3.4 On a separate sheet, list major projects your organization has in progress, giving the name of project, owner, your customer, contract amount, percent complete, and scheduled completion date.

See attached 1300 Form (1 page)

3.5 On a separate sheet, list the major projects your organization has completed in the past 5 years, giving the name of project, owner, your customer, contract amount, date of completion, and percentage of cost of the work performed with your own forces.

85% of our work is completed by our own forces.
See attached job lists.

3.5.1 State average annual amount of work performed during the past 5 years:

$26,733,697.00

3.6. Provide the following documentation of your Health and Safety Program:

a. Written Health and Safety Plan
b. Health and Safety Performance Record
c. Name and qualifications for Company Health and Safety Officer/designated person

Please see attached

4. FINANCIAL REFERENCES:

4.1 Bank References:

National City Bank
130 East Ludington Avenue
Ludington, MI 49431
Contact: Daniel Sleeman Phone: 231-845-5155

4.2 Surety References

ITT Hartford
2401 West Big Beaver Road
Troy, MI 48007
Contact: Douglas F. Burgher Phone: 1-800-872-8303

5. FINANCING:

5.1 Financial Statement

5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

- Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory, and prepaid expenses)
- Net Fixed Assets
- Other Assets
- Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries, and accrued payroll taxes)
- Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings)

5.1.2 Name and address of firm preparing financial statement, and date thereof:

Brickley DeLong, PC
P.O. Box 999
Muskegon, MI 49443

5.1.3 Is the attached financial statement for the identical organization named on page 1? If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary).

Yes

5.2 Will the organization whose financial statement is attached act as guarantor of a contract for providing services to REALM / ENCORE?

Yes

6. INSURANCE

On a separate sheet list evidence of current insurance carried including type of insurance, policy number, policy effective/expiration date, limits, name of carrier, name and address of broker/agent, or attach Certificate of Insurance with equal evidence.

See attached

7. FORM OF SUBCONTRACT

7.1 Will your firm enter into the attached Master Agreement without exceptions? SEE ATTACHED EXAMPLE COPY.

No ☐ Yes ☒

8. BRANCH OFFICES

8.1 On a separate sheet, list office locations, including address, phone/fax numbers, and office manager.

n//a

ACORD CERTIFICATE OF LIABILITY INSURANCE

CSR GE
HARDM-1

DATE (MM/DD/YYYY)
03/31/04

PRODUCER
Lenz & Associates, Inc.
201 East Court Street
P.O. Box 250
Ludington MI 49431-0250
Phone: 231-845-6279 Fax: 231-845-5188

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Hardman Construction
Bill Lynn
242 S Brye Rd
Ludington MI 49431

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	Hartford Insurance	19682
INSURER B:	RSUI Indemnity	
INSURER C:		
INSURER D:		
INSURER E:		

APR 1 2004

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	X	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC	81UENOC1551	03/01/04	03/01/05	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Emp Ben.	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 1,000,000
A		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	81UENOC1552	03/01/04	03/01/05	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
B		EXCESS/UMBRELLA LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE X RETENTION $10,000	P2HN020478	03/01/04	03/01/05	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000 $ $ $
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	81WE0C1559	03/01/04	03/01/05	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 500,000 $ 500,000 $ 500,000
		OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Verification of insurance coverage as Additional Insured for certificate holder shown below.

CERTIFICATE HOLDER

CRA SAMPLE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Marc Lenz

© ACORD CORPORATION 1988

	FORM 1300 - OCTOBER 1, 2004								
JOB NUMBER	PROJECT NAME	CONTRACT NUMBER	CONTRACT AMOUNT	ESTIMATE NUMBER	ESTIMATE DATE	CONTRACT EARNED TO DATE	PRIME CONTRACTOR UNCOMPLETED	SUB-CONTRACTORS WORK (UNCOMPLETED)	(HCI) TOTAL UNCOMPLETED CONTRACT AMONT
	PRIME CONTRACTS							**SECTION # 2**	**SECTION # 1**
1045	M115 Over Betsie River	ASTT 10042 -58888A	1,018,840.58	12	8/27/2004	887,748	131,092	120,364	10,728
1047	I94 Over Red Arrow Highway	ANH 11015 - 50782A	5,856,641.89	13	8/24/2004	3,551,091	2,305,551	835,666	1,469,885
1054	Reek Road over PM River	53003 - 59774A	658,320.32	7	8/31/2004	616,426	41,894	23,331	18,563
1055	Bridge over Tittabawasse River	73404 - 50191A	2,744,663.10	8	8/16/2004	1,195,623	1,549,040	963,682	585,358
1056	Lilac Road over St. Joseph Manumee	30004 - 56509A	772,418.11	9	8/23/2004	500,084	272,334	16,760	255,574
1083	RR Track - Grand Traverse County	28004 - 80139	108,954.00	0		-	108,954	-	108,954
1085	M-47 at the Freeland Drain	73073 - 40402	163,798.13	0		-	163,798	2,620	161,178
	TOTALS		**11,323,636**			**6,750,973**	**4,572,664**	**1,959,803**	**2,449,062**
	SUB-CONTRACTS								
	TOTALS		-			-	-	-	-
	GRAND TOTALS		**11,323,636**			**6,750,973**	**4,572,664**	**1,959,803**	**2,449,062**

From: Landale, Beth
Sent: Tuesday, October 05, 2004 10:33 AM
To: Filing
Subject: FW: 017303_submittal01 approval

From: Gentner, Michael
Sent: October 4, 2004 3:24 PM
To: Landale, Beth
Subject: RE: 017303_submittal01

AZ18 approved. Have them specify which grade of steel they are using for the record.

-----Original Message-----
From: Landale, Beth
Sent: Friday, October 01, 2004 12:21 PM
To: Gentner, Michael
Subject: FW: 017303_submittal01

Hi Mike,
Attached is the sheet pile submittal.
Can you please review this and approve it.
Thanks,
Beth

From: Abdallah, Matthew
Sent: October 1, 2004 10:18 AM
To: Landale, Beth
Subject: 017303_submittal01

<< File: sub001.pdf >>

Sincerely,

Matthew S. Abdallah
CRA Services the construction division of CRA Inc.
14496 Sheldon Road Suite 200
Plymouth, MI 48170
Fax- 734-453-5201
Work: 734-453-5123
Cell: 248-361-0578

CONESTOGA-ROVERS & ASSOCIATES

4141 Davis Creek Court
Kalamazoo, Michigan 49001-0838
Telephone: (269) 344-1230 Fax: (269) 344-8558
www.CRAworld.com

TRANSMITTAL

DATE: 10/01/04

REFERENCE NO.: 017303.10.20

PROJECT NAME: Former Willow Run Assembly/ CVO Facility

TO: Beth Landale
Conestoga-Rovers and Associates, Inc.
1880 Assumption Street
Windsor, Ontario N8Y1C4, Canada
Phone: (519)-966-9886 FAX:

Please find enclosed:

- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☐ Final
- ☒ Other Submittal 017303.001

Sent via:

- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other Fascimile

QUANTITY	DESCRIPTION
1	AZ-18 Hot Rolled Steel Sheetpiling

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
Attached submittal for your review and approval

Copy to: Correspondence File

Completed by: Matthew S. Abdallah [Please Print]

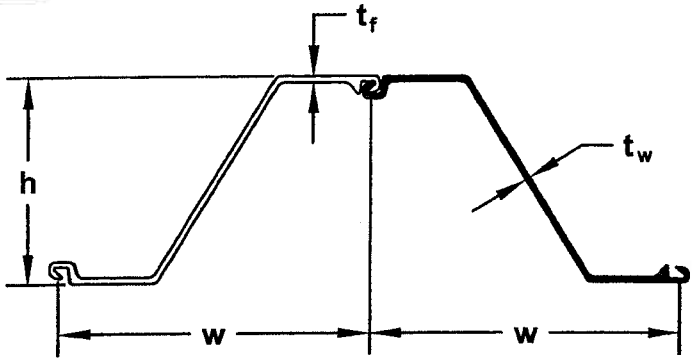
Signed: Matthew S. Abdallah

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

SKYLINE
Skyline Steel, LLC

8 Woodhollow Road, Parsippany, NJ 07054
Phone: 973-428-6100 Fax: 973-428-7399
engineering@skylinesteel.com
www.skylinesteel.com
Technical Hotline: 1-866-8Skyline (1-866-875-9546)

AZ



AZ Hot Rolled Steel Sheet Piling

SECTION	Width (w) in (mm)	Height (h) in (mm)	THICKNESS Flange (t_f) in (mm)	THICKNESS Web (t_w) in (mm)	WEIGHT Pile lb/ft (kg/m)	WEIGHT Wall lb/ft² (kg/m²)	Section Modulus in³/ft (cm³/m)	Moment of Inertia in⁴/ft (cm⁴/m)	COATING AREA Both Sides ft²/ft of single (m²/m)	COATING AREA Wall Surface ft²/ft² (m²/m²)
AZ 12	**26.38** *670*	**11.89** *302.0*	**0.335** *8.50*	**0.335** *8.50*	**44.42** *66.10*	**20.22** *98.70*	**22.3** *1200*	**132.8** *18140*	**5.45** *1.66*	**1.23** *1.23*
AZ 13	**26.38** *670*	**11.93** *303.0*	**0.375** *9.50*	**0.375** *9.50*	**48.38** *72.00*	**22.02** *107.5*	**24.2** *1300*	**144.3** *19700*	**5.45** *1.66*	**1.23** *1.23*
AZ 14	**26.38** *670*	**11.97** *304.0*	**0.413** *10.50*	**0.413** *10.50*	**52.62** *78.30*	**23.94** *116.90*	**26.0** *1400*	**156.0** *21300*	**5.45** *1.66*	**1.23** *1.23*
AZ 17	**24.80** *630*	**14.92** *379.0*	**0.335** *8.50*	**0.335** *8.50*	**45.96** *68.40*	**22.24** *108.60*	**31.0** *1665*	**231.3** *31580*	**5.64** *1.72*	**1.35** *1.35*
* **AZ 18**	**24.80** *630*	**14.96** *380.0*	**0.375** *9.50*	**0.375** *9.50*	**49.99** *74.40*	**24.19** *118.10*	**33.5** *1800*	**250.4** *34200*	**5.64** *1.72*	**1.35** *1.35*
AZ 19	**24.80** *630*	**15.00** *381.0*	**0.413** *10.50*	**0.413** *10.50*	**54.43** *81.00*	**26.34** *128.60*	**36.1** *1940*	**270.8** *36980*	**5.64** *1.72*	**1.35** *1.35*
AZ 25	**24.80** *630*	**16.77** *426.0*	**0.472** *12.00*	**0.441** *11.20*	**61.49** *91.50*	**29.74** *145.20*	**45.7** *2455*	**382.6** *52250*	**5.91** *1.80*	**1.41** *1.41*
AZ 26	**24.80** *630*	**16.81** *427.0*	**0.512** *13.00*	**0.480** *12.20*	**65.72** *97.80*	**31.79** *155.20*	**48.4** *2600*	**406.5** *55510*	**5.91** *1.80*	**1.41** *1.41*
AZ 28	**24.80** *630*	**16.85** *428.0*	**0.551** *14.00*	**0.520** *13.20*	**70.15** *104.40*	**33.94** *165.70*	**51.2** *2755*	**431.6** *58940*	**5.91** *1.80*	**1.41** *1.41*
AZ 34	**24.80** *630*	**18.07** *459.0*	**0.669** *17.00*	**0.512** *13.00*	**77.61** *115.50*	**37.54** *183.30*	**63.8** *3430*	**576.3** *78700*	**6.10** *1.86*	**1.47** *1.47*
AZ 36	**24.80** *630*	**18.11** *460.0*	**0.709** *18.00*	**0.551** *14.00*	**82.11** *122.20*	**39.73** *194.00*	**67.0** *3600*	**606.3** *82800*	**6.10** *1.86*	**1.47** *1.47*
AZ 38	**24.80** *630*	**18.15** *461.0*	**0.748** *19.00*	**0.591** *15.00*	**86.75** *129.10*	**41.97** *204.90*	**70.3** *3780*	**637.7** *87080*	**6.10** *1.86*	**1.47** *1.47*
AZ 46	**22.83** *580*	**18.94** *481.0*	**0.709** *18.00*	**0.551** *14.00*	**89.10** *132.60*	**46.82** *228.60*	**85.5** *4595*	**808.8** *110450*	**6.23** *1.90*	**1.63** *1.63*
AZ 48	**22.83** *580*	**18.98** *482.0*	**0.748** *19.00*	**0.591** *15.00*	**93.81** *139.60*	**49.28** *240.60*	**89.3** *4800*	**847.1** *115670*	**6.23** *1.90*	**1.63** *1.63*
AZ 50	**22.83** *580*	**19.02** *483.0*	**0.787** *20.00*	**0.630** *16.00*	**98.58** *146.70*	**51.80** *252.90*	**93.3** *5015*	**886.5** *121060*	**6.23** *1.90*	**1.63** *1.63*

ARCELOR INTERNATIONAL AMERICA
Arcelor Group

SKYLINE STEEL CORPORATION

ARBED AZ HOT-ROLLED SHEET PILES REPLACING PZ 40, PZ 35, PZ 27

Sections	Geometrical dimensions				Physical properties				Bending moment capacities (at allowable working stress = 0.667 · nominal yield strength)						Weight
	Width (in) (mm)	Height (in) (mm)	Web thickness (in) (mm)	Flange thickness (in) (mm)	Section modulus (in³/ft) (cm³/m)	Moment of inertia (in⁴/ft) (cm⁴/m)	Weight per single (lb/ft) (kg/m)	Weight per wall (lb/ft²) (kg/m²)	A328 (270) (ft·kips/ft) (kNm/m)	A572 Gr42 (290) (ft·kips/ft) (kNm/m)	A572 Gr50 (345) (ft·kips/ft) (kNm/m)	A572 Gr55 (380) (ft·kips/ft) (kNm/m)	A572 Gr60 (414) (ft·kips/ft) (kNm/m)	A572 Gr65 (448) (ft·kips/ft) (kNm/m)	%
PZ 40	19.69 500	18.10 459	0.500 12.7	0.600 15.4	60.7 9325	490.85 67029	65.60 97.6	40.00 195.3	131.50 587	114.61 631	168.59 750	186.45 837	202.31 901	219.16 975	100.00
AZ 38	24.81 630	18.15 461	0.594 15.1	0.752 19.1	70.8 3905	642.01 87670	87.42 130.1	42.29 206.5	153.42 685	165.22 738	196.69 876	216.36 964	236.03 1051	255.70 1137	105.73
AZ 36 ru .04" (+1.0 mm)	24.81 630	18.15 461	0.591 15.0	0.748 19.0	70.3 3778	637.7 87080	86.75 129.1	41.97 204.9	152.33 680	164.05 731	195.29 869	214.82 956	234.35 1043	253.88 1130	104.93
AZ 36 ru .02" (+0.5 mm)	24.81 630	18.13 460.5	0.571 14.5	0.728 18.5	68.6 3689	622.0 84940	84.47 125.7	40.86 199.5	148.74 664	160.18 714	190.69 849	209.76 934	228.85 1019	247.90 1104	102.15
AZ 36	24.81 630	18.11 460	0.551 14.0	0.709 18.0	67.0 3600	606.3 82800	82.11 122.2	39.73 194.0	145.15 648	156.32 698	186.09 828	204.70 912	223.31 994	241.92 1078	99.33
AZ 36 rd .02" (-0.5 mm)	24.81 630	18.09 459.5	0.531 13.5	0.689 17.5	65.4 3515	591.3 80750	79.83 118.8	38.63 188.6	141.73 633	152.63 680	181.70 809	199.87 891	218.04 971	236.21 1050	96.58
AZ 36 rd .04" (-1.0 mm)	24.81 630	18.07 459	0.512 13.0	0.669 17.0	63.8 3429	576.3 78700	77.61 115.5	37.54 183.3	138.26 615	148.89 663	177.25 789	194.98 869	212.70 947	230.43 1026	93.86
AZ 26 ru .04" (+1.0 mm)	24.81 630	16.85 428	0.520 13.2	0.551 14.0	61.2 2754	431.6 58940	70.15 104.4	33.94 165.7	111.04 496	119.58 533	142.36 634	156.60 698	170.83 760	185.07 823	84.85
AZ 26 ru .02" (+0.5 mm)	24.81 630	16.83 427.5	0.500 12.7	0.531 13.5	59.6 2665	417.1 56960	67.67 100.7	32.75 159.9	107.45 480	115.72 515	137.76 613	151.54 675	165.31 736	179.09 798	81.86
AZ 26	24.81 630	16.81 427	0.480 12.2	0.512 13.0	58.4 2600	406.5 55510	65.72 97.8	31.75 155.0	104.83 466	112.90 503	134.40 598	147.84 659	161.28 718	174.72 777	79.38
PZ 35	22.64 575	14.90 378	0.500 12.7	0.600 15.4	48.5 2382	361.22 49320	66.00 98.3	35.00 170.8	105.10 468	113.19 504	134.75 600	148.22 661	161.7 720	175.17 779	100.00
AZ 26	24.81 630	16.81 427	0.480 12.2	0.512 13.0	48.4 2600	406.5 55510	65.72 97.8	31.75 155.0	104.83 466	112.90 503	134.40 598	147.84 659	161.28 718	174.72 777	90.71
AZ 26 ru .04" (+1.0 mm)	24.81 630	16.85 428	0.520 13.2	0.551 14.0	51.2 2754	431.6 58940	70.15 104.4	33.94 165.7	111.04 496	119.58 533	142.36 634	156.60 698	170.83 760	185.07 823	96.97
AZ 26 ru .02" (+0.5 mm)	24.81 630	16.83 427.5	0.500 12.7	0.531 13.5	49.6 2665	417.1 56960	67.67 100.7	32.75 159.9	107.45 480	115.72 515	137.76 613	151.54 675	165.31 736	179.09 798	94.00
AZ 26 rd .02" (-0.5 mm)	24.81 630	16.79 426.5	0.461 11.7	0.492 12.5	47.2 2539	396.3 54120	63.84 95.0	30.89 150.8	102.33 457	110.20 491	131.20 584	144.32 643	157.45 701	170.55 759	88.26
AZ 26 rd .04" (-1.0 mm)	24.81 630	16.77 426	0.441 11.2	0.472 12.0	45.8 2453	382.6 52280	61.48 91.5	29.74 145.2	98.91 442	106.51 474	126.80 564	139.48 622	152.16 677	164.84 735	84.97
AZ 18 ru .04" (+1.0 mm)	24.81 630	15.00 381	0.413 10.5	0.413 10.5	36.1 1941	270.8 36980	54.43 81.0	26.34 128.6	78.26 350	84.28 378	100.34 447	110.37 492	120.40 536	130.44 581	75.26
AZ 18 ru .02" (+0.5 mm)	24.81 630	14.98 380.5	0.394 10.0	0.394 10.0	34.6 1858	258.9 35350	52.07 77.4	25.15 122.8	74.81 335	80.68 359	96.04 428	105.65 471	115.28 513	124.96 555	71.86
AZ 18	24.81 630	14.96 380	0.376 9.5	0.376 9.6	33.5 1800	250.4 34200	49.99 74.4	24.17 118.0	72.58 324	78.16 348	93.05 414	102.35 456	111.66 497	120.96 538	69.06
AZ 18 rd .02" (-0.5 mm)	24.81 630	14.94 379.5	0.354 9.0	0.354 9.0	32.3 1748	242.9 33170	48.25 71.8	23.36 114.0	70.48 315	75.90 338	90.36 402	99.39 443	108.43 483	117.47 522	66,71
AZ 18 rd .04" (-1.0 mm)	24.81 630	14.92 379	0.335 8.5	0.335 8.5	31.0 1686	231.3 31580	45.96 68.4	22.24 108.6	67.17 300	72.34 322	86.12 383	94.73 422	103.34 460	111.96 498	63,54
PZ 27	18.00 457	12.00 305	0.375 9.5	0.375 9.5	30.2 1654	184.20 25164	40.52 60.3	27.00 131.8	65.45 292	70.48 314	83.91 374	92.30 411	100.68 448	109.06 486	100.00
AZ 18	24.81 630	14.96 380	0.375 9.5	0.375 9.5	33.5 1800	250.4 34200	49.99 74.4	24.17 118.0	72.58 324	78.16 348	93.05 414	102.35 456	111.66 497	120.96 538	89.52
AZ 18 rd .02" (-0.5 mm)	24.81 630	14.94 379.5	0.354 9.0	0.354 9.0	32.5 1748	242.9 33170	48.25 71.8	23.35 114.0	70.48 315	75.90 338	90.36 402	99.39 443	108.43 483	117.47 522	86.48
AZ 18 rd .04" (-1.0 mm)	24.81 630	14.92 379	0.335 8.5	0.335 8.5	31 1666	231.3 31580	45.96 68.4	22.24 108.6	67.17 300	72.34 322	86.12 383	94.73 422	103.34 460	111.96 498	82.37
AZ 13 ru .04" (+1.0 mm)	26.38 670	11.97 304	0.413 10.5	0.413 10.5	26.1 1401	156.0 21300	52.62 78.3	29.94 146.2	56.49 252	60.83 271	72.42 322	79.86 355	86.91 387	94.15 419	89.67
AZ 13 ru .02" (+0.5 mm)	26.38 670	11.95 303.5	0.394 10.0	0.394 10.0	25.0 1343	149.2 20380	50.26 74.8	28.66 117.8	54.15 242	58.32 260	69.42 309	76.37 340	83.31 371	90.25 401	84.67
AZ 13	26.38 670	11.93 303	0.375 9.5	0.375 9.5	24.2 1300	144.3 19700	48.38 72.0	21.82 107.0	52.42 234	56.46 251	67.20 299	73.92 329	80.64 359	87.36 389	81.19

ARBED GROUP

CONESTOGA-ROVERS & ASSOCIATES

4141 Davis Creek Court
Kalamazoo, Michigan 49001-0838
Telephone: (269) 344-1230 Fax: (269) 344-8558
www.CRAworld.com

TRANSMITTAL

DATE: 10/13/04

REFERENCE NO.: 017303.10.20

PROJECT NAME: Former Willow Run Assembly/ CVO Facility

TO: Beth Landale
Conestoga-Rovers and Associates, Inc.
1880 Assumption Street
Windsor, Ontario N8Y1C4, Canada
Phone: (519)-966-9886 FAX: (519)-966-3894

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☐ Final
- ☒ Other Submittal 017303-003

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other PDF

QUANTITY	DESCRIPTION
1	Clay backfill source memorandum

SUBMITTAL REVIEW

This review is for the sole purpose of ascertaining conformance with the general design concept, and in no way constitutes approval of the detail design inherent in the shop drawings, responsibility for which remains with the contractor submitting same.

☒ REVIEWED
☐ REVISE AS NOTED
☐ REVISE AND RESUBMIT

SUBMISSION NO. 17303-003
PROJECT NO. 17303
BY B Landale
DATE 10/14/04

CONESTOGA - ROVERS & ASSOCIATES

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
Attached submittal for your review and approval

Copy to: Correspondence File

Completed by: Matthew S. Abdallah [Please Print]

Signed: Matthew S. Abdallah

Filing: Correspondence File

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

CONESTOGA-ROVERS & ASSOCIATES

4141 Davis Creek Court
Kalamazoo, Michigan 49001-0838
Telephone: (269) 344-1230 Fax: (269) 344-8558
www.CRAworld.com

MEMORANDUM

TO:	Beth Landale	REF. NO.:	017303.10.20
FROM:	Matthew S. Abdallah MSA	DATE:	10/13/04
C.C.:	File		
RE:	**Clay Backfill Source Summary**		

CRA Services the Construction Division of Conestoga-Rovers Inc. (CRA) is utilizing this memorandum to summarize the clay fill source for the AOC 18 DNAPL IRA – Sheet Pile Barrier Former Willow Run Assembly Plant/ CVO Facility (Site).

Edward C. Levy Aggregates Inc. did have a clay source available, however a sample of the source contained a large percentage of sand and gravel and is considered unusable for the project needs.

The following companies indicated they did not have a source of clay:

- B&V Construction Company;
- Waste Management Inc. of Michigan;
- London Aggregates Inc.;
- R&R Trucking Inc.;
- Farmer and Underwood Trucking Inc.; and,
- Hendrickson Trucking Inc.

Based on the above research in obtaining a source of clay for this project, CRA services contacted Wirt Stone Docks of Bay City, Michigan (Wirt).

Wirt does have a source of clay that has been used on a previous General Motors project; The source of clay has been analytically tested for the Middleground project; Approximately 420-tons will be required; and and the cost is approximately $14.70/ ton.

Therefore it is CRA services opinion that the clay source that could be provided by Wirt should be used for this project.

This summary is being submitted to you as a submittal. Please let me know if CRA services can proceed with this idea and procure the clay from Wirt Stone Docks. If this is approved we will have to prepare a change order for the clay source and the equipment to backfill the clay. Please note that the cost of the clay and the equipment was not included in the proposal, due to a design change requiring additional clay as indicated in memorandum 057, dated September 28, 2004.

CONESTOGA-ROVERS & ASSOCIATES

4141 Davis Creek Court
Kalamazoo, Michigan 49001-0838
Telephone: (269) 344-1230 Fax: (269) 344-8558
www.CRAworld.com

TRANSMITTAL

DATE: 11/12/04

REFERENCE NO.: 017303.10.80

PROJECT NAME: Former Willow Run Assembly/ CVO Facility

TO: Beth Landale
Conestoga-Rovers and Associates, Inc.
1880 Assumption Street
Windsor, Ontario N8Y1C4, Canada
Phone: (519)-966-9886 FAX: (519)-966-3894

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☐ Final
- ☒ Other RevisedSubmittal 017303-004A

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other PDF

QUANTITY	DESCRIPTION
1	Brighton Analytical Preliminary results
1	Memorandum email describing topsoil source

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
This is a revised submittal based on the latest round of analytical results for the topsoil source.

Copy to: Correspondence File

Completed by: Matthew S. Abdallah [Please Print] Signed: Matthew S. Abdallah

Filing: Correspondence File

SUBMITTAL REVIEW

This review is for the sole purpose of ascertaining conformance with the general design concept, and in no way constitutes approval of the detail design inherent in the shop drawings, responsibility for which remains with the contractor submitting same.

- ☒ REVIEWED
- ☐ REVISE AS NOTED
- ☐ REVISE AND RESUBMIT

SUBMISSION NO: 17303-004A
PROJECT NO: 17303
BY: B Landale
DATE: 11/12/04

CONESTOGA - ROVERS & ASSOCIATES

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

Brighton Analytical L.L.C. ™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 11/05/2004
Submit Date: 11/05/2004
Report Date: 11/11/2004

To: Conestoga Rovers and Associates
14496 Sheldon Road
Suite 200
Plymouth, MI 48170

BA Report Number: **76147**
BA Sample ID: **BG07349**

Project Name: **Willow Run CNO**
Project Number: **17303**
Sample ID: **S-17303-110504-BH-001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Total Arsenic	**2.5**	mg/Kg	0.10	SW846 6020	GW	11/08/2004
Total Barium	**27**	mg/Kg	1.0	SW846 6020	GW	11/08/2004
Total Cadmium	**0.42**	mg/Kg	0.05	SW846 6020	GW	11/08/2004
Total Chromium	**6.1**	mg/Kg	0.50	SW846 6020	GW	11/08/2004
Total Copper	**9.4**	mg/Kg	1.0	SW846 6020	GW	11/08/2004
Total Lead	**7.4**	mg/Kg	1.0	SW846 6020	GW	11/08/2004
Total Mercury	**Not detected**	mg/Kg	0.10	SW846 7471	KW	11/08/2004
Total Selenium	**0.66**	mg/Kg	0.20	SW846 6020	GW	11/08/2004
Total Silver	**Not detected**	mg/Kg	0.50	SW846 6020	GW	11/08/2004
Total Zinc	**22**	mg/Kg	1.0	SW846 6020	GW	11/08/2004
Metal Soil (digestion)	**Digested**			3050	PR	11/08/2004
Mercury (digestion)	**Digested**			7470/7471	KW	11/08/2004
SPLP Metal Analysis						
SPLP Selenium	**Not detected**	mg/L	0.005	SW846 6020	GW	11/11/2004
SPLP Metals (digestion)	**Digested**			3015	PR	11/11/2004
TPH Analysis						
Total Petroleum Hydrocarbons	**110**	mg/Kg	10	EPA 1664M	MB	11/08/2004
TPH 1664(extraction)	**Extracted**			1664	MB	11/08/2004
PCB Analysis						
ARO 1016	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1221	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1232	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1242	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1248	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1254	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1260	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 11/05/2004
Submit Date: 11/05/2004
Report Date: 11/11/2004

To: Conestoga Rovers and Associates
14496 Sheldon Road
Suite 200
Plymouth, MI 48170

BA Report Number: **76147**
BA Sample ID: **BG07349**

Project Name: **Willow Run CNO**
Project Number: **17303**
Sample ID: **S-17303-110504-BH-001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
ARO 1262	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
ARO 1268	**Not detected**	ug/Kg	330	SW846 8082	BY	11/08/2004
PCB (extraction)	**Extracted**			3510/3550	LS	11/08/2004
Volatile Analysis(Methanol Preserved)						
Acetone	**Not detected**	ug/Kg	750	SW846 8260	CW	11/06/2004
Benzene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Bromochloromethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Bromodichloromethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Bromoform	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Bromomethane	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Carbon disulfide	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Carbon tetrachloride	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Chlorobenzene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Chloroethane	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Chloroform	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Chloromethane	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Cyclohexane	**Not detected**	ug/Kg	2500	SW846 8260	CW	11/06/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Dibromochloromethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 11/05/2004
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Report Date: 11/11/2004

To: Conestoga Rovers and Associates
14496 Sheldon Road
Suite 200
Plymouth, MI 48170

BA Report Number: **76147**
BA Sample ID: **BG07349**

Project Name: **Willow Run CNO**
Project Number: **17303**
Sample ID: **S-17303-110504-BH-001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Ethyl benzene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
2-Hexanone	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Isopropylbenzene	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Methyl acetate	**Not detected**	ug/Kg	5000	SW846 8260	CW	11/06/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Methylcyclohexane	**Not detected**	ug/Kg	2500	SW846 8260	CW	11/06/2004
Methylene chloride	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
Styrene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Tetrachloroethene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Toluene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,1,2Trichloro1,2,2trifluoroethane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	250	SW846 8260	CW	11/06/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Trichloroethene	**Not detected**	ug/Kg	50	SW846 8260	CW	11/06/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	100	SW846 8260	CW	11/06/2004
Vinyl chloride	**Not detected**	ug/Kg	40	SW846 8260	CW	11/06/2004
Xylenes(total)	**Not detected**	ug/Kg	150	SW846 8260	CW	11/06/2004
EPA Method 5035 Methanol Preserv	**Extracted**			EPA 5035	WT	11/04/2004
%Solid	**83.7**	%		ASTM D-2216	GW	11/08/2004

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Sample Date: 11/05/2004
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To: Conestoga Rovers and Associates
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BA Report Number: **76147**
BA Sample ID: **BG07349**

Project Name: **Willow Run CNO**
Project Number: **17303**
Sample ID: **S-17303-110504-BH-001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by:

Date: 11-11-04

APPENDIX H.4

DNAPL RECOVERY SUMMARY

APPENDIX H.4

DNAPL RECOVERY SUMMARY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Well ID	DNAPL (gallons)							
	Year 2004	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Cumulative
MW18-01	8.78	NR [1]	9.45	2.05	0.10	0.05	NR [1]	20.43
MW18-02	22.26	NR [1]	14.40	13.68	8.85	2.35	4.1	65.64
MW18-03	78.60	34.30	4.45	0.05	0.06	NR [4]	NR [4]	117.46
MW18-04	112.50	66.90	123.1	50.98	0.22	NR [4]	NR [4]	353.70
PZ18-130	160.50	10.90 [2]	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]	171.40
MW18-05	-- [3]	43.70 [3]	106.75	66.75	4.16	NR [4]	NR [4]	221.36
MW18-08	-- [3]	-- [3]	-- [3]	87.95	26.90	4.00	5.30	124.15
MW18-09	-- [5]	-- [5]	-- [5]	-- [5]	148.00	-- [5]	-- [5]	378 [6]
Total	382.64	155.80	258.15	221.46	188.29	5.10		1452.14

Notes:
NR - No recovery
[1] The product thickness were minimal compared to other wells, therefore recovery was not conducted from MW18-01 and MW18-02 during year 2005 and was concentrated on other wells.
[2] The 1-inch Piezometer PZ18-130 was replaced by a 2-inch monitoring well, MW18-05, in June 2005 to recover DNAPL rapidly using a whaler pump.
[3] Monitoring wells MW18-05 and MW18-08 were installed in June 2005 and March 2007, respectively.
[4] The product thickness were minimal compared to other wells, therefore recovery was not conducted from MW18-03 and MW18-04, and MW18-05 during year 2009.
[5] Monitoring well MW18-09 was installed in April 2007 and DNAPL recovery activities were started in May 2007. The transition from bailed to automated recovery of DNAPL is represented in the table below.
Recovery frequencies varied over the years as represented in the attached charts.
[6] The cumulative amount includes the bailed and automated recovery amount since 2008 (shown in the table below)

Bailed to Automated Recovery Transition				
MW18-09	Year 2007	Year 2008	Year 2009	2010
DNAPL Bailed (gallons)	103.8	66.0	4.25	0
DNAPL Automated Recovery (gallons)	--	82.0	27.57	50.69
Cumulative		148.0	31.8	50.7
Total DNAPL	230.5			

Note:
DNAPL was bailed between May 3, 2007 through June 12, 2008 from MW18-09; automated recovery was started in July 2008.
The automated recovery system was shut off on 11/26/2008 and was turned on 03/23/2009.

APPENDIX H.5

PAOC 18 GROUNDWATER IRA SUMMARY

Discharge Results (mg/L)	Seep (5/4/2010)	Frac Tank (4/27/2011)
cis-1,2-Dichloroethene	46	35
Trichloroethene	ND(1.4)	0.9
Vinyl chloride	2.5	9.7

	Results (mg/L)			
GS-8	2007	2008	2009	2010
cis-1,2-Dichloroethene	40-120	64-130	61	48-54
Trichloroethene	1.6-6.5	1.4-2.5	1	ND(2) - 0.6
Vinyl chloride	4.8-11	6-10	4	4-22

CATWALKS

TYLER POND

SHEET PILE WALL

SUMP

FRENCH DRAIN (ESTIMATED)

DNAPL RECOVERY WELLS

MW18-02

MW18-09

MW18-01

MW19-18

MW18-04

MW18-05

MW18-08

MW18-03

GS-8

ABANDONED OUTFALL #12

OUTFALL #13

IW-41

IW-44

IW-45

MW-18-45

IW-50

IW-55

MW-6

12

SAN M.H.

M.H.

PERMANENT SEWER PLUG

R.S.

CB8

CB-11

CB-15

MH6

STM MH 18

U.P.

0 20 40ft

N

FRENCH DRAIN CONSTRUCTION NOTES

1. APPROXIMATELY 200 FEET LONG BY 18 INCHES WIDE.
2. 4 INCH DIAMETER HDPE PERFORATED PIPE IN 12 INCHES OF PEASTONE.
3. CENTER SUMP EQUIPPED WITH SUMP PUMP FOR WATER RECOVERY AND DISCHARGE.

LEGEND

- EOS(TM) INJECTION WELL LOCATION
- EXISTING MONITORING WELL LOCATION
- EXISTING INJECTION WELL LOCATION
- EXISTING PIEZOMETER LOCATION
- COMPLIANCE POINT
- SENTINEL POINT
- STORM SEWER
- SANITARY SEWER
- FENCE
- EDGE OF WATER

NOTE

1. SEEP SAMPLE COLLECTED BY PURGING WATER ACCUMULATING ON GROUNDSURFACE BEHIND THE SHEET PILE WALL, ALLOWING POOLED WATER TO RECHARGE AND COLLECTING A GRAB SAMPLE.

figure H.5

PAOC 18 GROUNDWATER IRA SUMMARY
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS AREA
Ypsilanti, Michigan

APPENDIX H.6

GS-6 EXCAVATION COMPLETION

APPENDIX H.6

GS-6 EXCAVATION COMPLETION
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

This document summarizes the excavation activities completed at the Company Vehicle Operations (CVO) on October 25, 2006, as authorized by Washtenaw County (permit # 2007-12-S) and the State of Michigan (permit # 06-81-0060-P). Conestoga-Rovers & Associates was contracted by ENCORE (Environmental Corporate Remediation) to remove a GSI (Groundwater Surface Water Interface) monitoring well (GS-6) and excavate approximately 18 cubic yards of soil. Monitoring well GS-6 was used as a GSI compliance point to assess the quality of groundwater venting to Tyler Pond. Recent quarterly sampling results have shown GSI exceedances of PCBs but the validity of these results are in question because GS-6 was set in an area that contained paint sludge with detectable levels of PCBs and elevated turbidity levels were recorded during sampling. To ensure the collection of representative samples from the groundwater at GS-6, an area approximately 9 ft. by 15 ft. was scheduled for excavation.

Excavation activities started and finished on October 25, 2006 (see attached abandonment log for details); approximately 40 cubic yards of soil were excavated. Silt fencing was installed prior to the excavation to prevent any material from reaching the pond. Once the excavation activities began, the sludge was found in lenses throughout the clean soil and as a result, the excavated volume of soil was larger than the original estimate of 18 cubic yards. There were two distinct colors of paint sludge, black sludge that emitted some petroleum odors and an odorless reddish/orange sludge.

The excavation commenced directly south of GS-6 and moved east and west until clean soils were observed. The largest pockets of black sludge were encountered directly south, east and west of GS-6. Monitoring well GS-6 was installed in the heaviest concentration of red paint sludge found in the excavation. This location was also the deepest point of the excavation; clean clays were not encountered until approximately 4.5 ft. below ground surface. Groundwater infiltration was minimal, less than one gallon of water entered the excavation. The final dimensions of the excavation were 18 ft. L x 13 ft. W x 3 ft. D. The fill area will be surveyed at a later date.

After visually clean boundaries were established and the excavation was complete, the excavator bucket was decontaminated and wipe samples were collected. Waste characterization samples were also collected from roll-off boxes 5622 and 14666. The excavation was then backfilled with sand (approx. 2.75 ft.) and the remaining depth was covered with topsoil. The topsoil was seeded with grass, fertilized and a straw blanket

was fastened to the ground to hold it in place. Sections of the area that were damaged by the backhoe tracks were also seeded and covered with the straw blanket.

Monitoring well GS-6 was re-installed on November 15, 2006. Originally GS-6 was to be installed in the center of the excavation but the fill material prevented its installation in that area. The saturated condition of the fill sand caused it to collapse around the auger hole. The installation attempt was abandoned to prevent further collapse of the surrounding fill. A new location immediately north of the excavation was selected as the replacement GS-6R location. The well was dug by hand with a shovel to a depth of approximately three feet. The well was installed with a screen length of 2.5 feet with a slot size of 0.010" (see attached borehole log).

To establish a hydraulic connection with the former GS-6 excavation and the new GS-6 location, a small trench (2 ft W x 2ft L x 1.5 ft D) was cut into the formation separating the two areas. Once the trench was completed, it was filled with sand to the same height as the sand in the hole in which GS-6R was placed. The sand was then covered with bentonite to form a seal. The construction details are shown on Figure H.6. The well was developed on November 21, 2006 and will include PCB analysis during the last 2006 quarterly sampling event at CVO. Weekly inspections of the area commenced in the first week of November and will continue until Washtenaw County is satisfied that permanent vegetative cover has been restored to the area. The well will be surveyed at a later date.

Washtenaw County Inspector Jason Bibby evaluated the excavation area on November 2, 2006 and was satisfied with the erosion control measures implemented. The five hundred dollar escrow has not been released because permanent soil cover was not present at the time of inspection. A follow-up inspection will be requested when permanent cover is established; this is expected to occur in the spring of 2007. Notification of completed excavation activities to the state was completed.

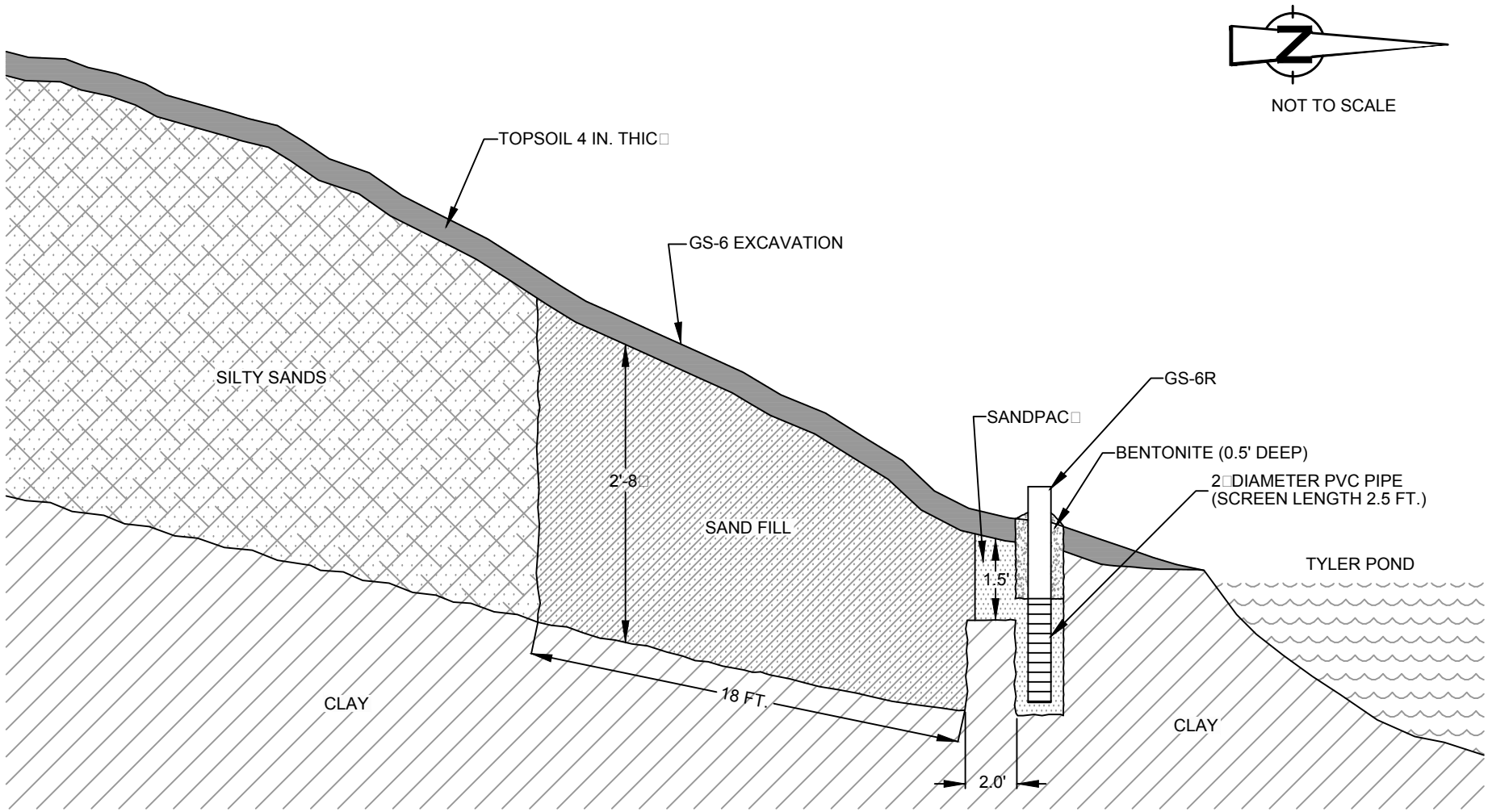


figure H.6

GS-6R INSTALLATION CROSS SECTION
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

NOTE: SLOPE OF HILL IS APPROXIMATE.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM - CVO
PROJECT NUMBER: 17303
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: YPSILANTI, MICHIGAN

HOLE DESIGNATION: GS-6R
DATE COMPLETED: November 15, 2006
DRILLING METHOD: HAND AUGER
FIELD PERSONNEL: M. MATHE-DRADER

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
0	CI-CLAYS, firm, medium plasticity, gray, moist		2" PVC WELL CASING 2" PVC WELL SCREEN				
2							
3	- brown at 3.5ft BGS	3.30					
4	SM-SILTY SANDS, compact, poorly graded, fine grained, black, wet, petroleum-like odor	3.80					
5	END OF BOREHOLE @ 3.8ft BGS						
6	NOTE: THE MAJORITY OF STAINED SOILS WERE REMOVED DURING INSTALLATION						
8			WELL DETAILS Screened interval: 0.50 to 3.00ft BGS Length: 2.5ft Diameter: 2in Slot Size: 0.010 Material: PVC				
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

MONITOR WELL ABANDONMENT RECORD

Site Name: Company Vehicle Operations County: Washtenaw

Section: 12 Town: T3S Range: R7E MW#: GS-6

Date Installed: 05/24/05 Date Abandoned: 10/25/06 Drilling Firm: CRA Services

Well Depth: 6.0 ft. Screen Depth from TOC: 2.0 ft. Water Table Depth from TOC: — ft.

Casing Type: Galvanized ☒ PVC ☐ Stainless Steel ☐ ID: 2" ☒ 4" ☐

Screen Type: PVC ☒ Stainless Steel ☐ Length: 6.0 ft.

2" Annulus Grouted: Yes ☐ No ☒ from ____ ft. to ____ ft. Grout Type: ____

4" Annulus Grouted: Yes ☐ No ☒ from ____ ft. to ____ ft. Grout Type: ____

Casing: Pulled ☒ Cut ☐ Depth BGL: ____ Well Grouted? Yes ☐ No ☒

Grout Type: Bentonite ☐ Cement ☐ Grouting Method: Through Casing ☐ Tremie ☐ Other ☒ (explain)

Grout was not used as entire borehole was excavated.

Crew: Luis Alvarez / CRA

Matt Abdallah, K. Norton, S. Coming / CRA Services

Comments: The entire well boring was excavated as part of a clean up operation. There was no hole to fill; instead, the excavation was backfilled with sand and overlayed with topsoil and erosion protection measures

Signature of Consultant/Engineer 11/24/06 Date

P:\ERD\Forms\Wellabac.frm

APPENDIX H.7

PAOC 18 – EOS INJECTION SUMMARY

APPENDIX H.7

EOS INJECTION GROUNDWATER SUMMARY
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Enhanced Bioremediation - Soy Lactate Injections

DNAPL has been observed in monitoring wells MW18-01, MW18-02, MW18-03, MW18-04, MW18-05, MW18-08 and MW18-09. The DNAPL is considered the source area for chlorinated volatile organic compounds (VOCs) in groundwater at PAOC 18. These VOCs have migrated to the GSI compliance point, monitoring well GS-8, in concentrations exceeding the Final Acute Value (FAV) criterion.

As a response to the FAV criterion exceedances by trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE) at monitoring well GS-8, a short-term remedial action was approved by the MDEQ on February 14, 2007 and implemented in April 2007 by CRA. The short-term remedial action consisted of the injection of a soy lactate solution (EOS™) and nutrients to stimulate anaerobic degradation of the chlorinated compounds. The EOS™ created suitable conditions for reductive dechlorination by existing bacteria present in the soil. TCE is converted to cis-1,2-DCE then to vinyl chloride and finally to ethene, a less toxic constituent than its chemical predecessors.

Natural attenuation wells IW-41, IW-44, IW-45, IW-55, MW18-45, and GS-8 were sampled during March, June and September 2008 to evaluate the soy lactate's effectiveness at stimulating reductive dechlorination. The effectiveness was assessed by evaluating the natural attenuation parameters and how the concentrations of TCE, cis-1,2-DCE, vinyl chloride and ethene fluctuated over time. Baseline conditions were reported to the Michigan Department of Environment Quality (MDEQ) as a part of the March 2007 quarterly sampling event. The final sampling event included in the schedule submitted to the MDEQ on December 22, 2006 (approved with modifications by MDEQ on February 14, 2007) is the March 2009 sampling event.

Natural Attenuation Groundwater Monitoring

Groundwater samples were collected from six wells to monitor the natural attenuation parameters. The six wells that were used to monitor the effectiveness of the treatment are IW-41, IW-44, IW-45, IW-55, MW18-45, and GS-8, as described earlier.

The following list summarizes the locations of the six wells included in the monitoring program.

- Well IW-41 is located approximately 20 feet upgradient of the injection points
- Well IW-44 is located approximately 25 feet downgradient from the injection points
- Well IW-45 is approximately 50 feet downgradient of the injection points
- Well MW-18-45 is located approximately 60 feet downgradient of the injection points near the edge of the sheet pile wall
- Well GS-8 is located on the other side of the sheet pile wall from the injection wells near Tyler Pond and is considered the GSI compliance point
- Well IW-55 is located approximately 50 feet to the south east of the injection points

During the course of the baseline sampling event (March 2007), field personnel observed the presence of light non-aqueous phase liquid (LNAPL) in monitoring well IW-50 and as a result, monitoring well IW-55 was sampled instead of IW-50 for all the sampling events. This was identified in a June 14, 2007 letter to the MDEQ entitled Short-Term Remedial Action Summary.

The two years of required sampling consisted of a baseline-monitoring event performed prior to the injection (March 2007), six weeks post injection (June 2007), four quarterly (September 2007, December 2007, March 2008 and June 2008) and two semi-annual (September 2008 and March 2009) monitoring events.

Natural Attenuation Results Summary

Key parameter trends at each monitoring well are shown graphically on Figure H.7. The data are also summarized in Table H.7.1. The constituents that were detected above the MDEQ part 201 criteria are bolded and boxed in the table.

Monitoring wells IW-41 and IW-44 are located closest to the injection points. The data show that groundwater conditions at monitoring wells IW-41 and IW-44 were strongly affected by the EOS™ injection. At well IW-41, levels of cis-1,2-DCE increased immediately after the EOS™ injection, and TCE levels decreased. The cis-1,2-DCE levels decreased by September 2007, and vinyl chloride levels increased showing that cis-1,2-DCE was being degraded to vinyl chloride. Vinyl chloride levels then decreased during March 2008 and June 2008 but increased again by September 2008, suggesting that vinyl chloride degradation was occurring; however, vinyl chloride degradation to ethene was not occurring as quickly as cis-1,2-DCE degradation to vinyl chloride. By September 2008, TCE was no longer detected at the well. During March 2009, TCE levels had significantly increased to greater than the baseline reading. During September 2007, ethene concentrations had increased, confirming that vinyl chloride degradation to ethene was occurring. After December 2007, dissolved oxygen (DO) and

oxidation reduction potential (ORP) levels, which had dropped significantly after the initial EOS application, had rebounded. These values have continued to rise.

At well IW-44, TCE levels decreased, and cis-1,2-DCE levels increased immediately after the EOS injection. By December 2007, cis-1,2-DCE levels had fallen; however, they increased again during the September 2008 and March 2009 monitoring events. By June 2008, TCE was no longer detected in the well. The TCE concentrations, since June 2008 have increased to levels greater than the baseline reading. Vinyl chloride levels increased slightly, and ethene levels increased significantly, indicating that biodegradation was proceeding to ethene and not stalling at cis-1,2-DCE or vinyl chloride even though the levels of the compounds had increased. The DO and ORP decreased after the EOS™ injection, and although they showed slight increases after the March 2008 monitoring event, they have remained fairly low.

Monitoring well IW-45 is the next closest well to the barrier, located approximately 50 feet downgradient. No changes as a result of the injection were observed at this monitoring well during the first post-injection event (June 2007). During the September 2007 monitoring event, however, levels of cis-1,2-DCE had increased, and DO and ORP had dropped significantly. TCE levels also decreased. This trend continued as the cis-1,2-DCE level rose further at the December 2007 monitoring event. Cis-1,2-DCE levels then dropped during the March 2008 monitoring event and rose again during the June 2008 and September 2008 monitoring events. Vinyl chloride levels also showed a slight increase after the December 2007 monitoring event. Ethene also increased throughout the treatment, although ethene levels were low compared to those found at the monitoring wells located closer to the barrier. The DO and ORP rose significantly during the March 2008 and June 2008 monitoring events. By March 2009, 42 percent of the TCE had been biodegraded at the well.

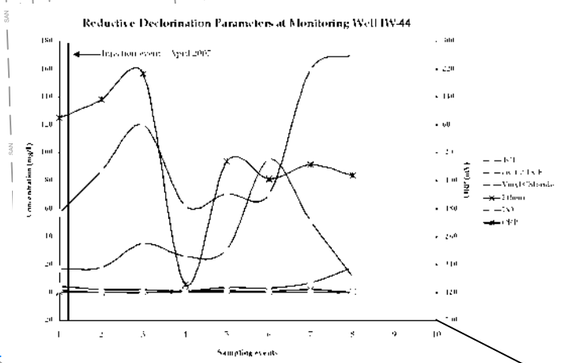
Well MW-18-45 is located close to IW-45. A slight increase in cis-1,2-DCE levels was observed after the EOSTM injection; vinyl chloride levels had also increased slightly but had fallen by the June 2008 monitoring event. Ethene levels increased during September 2007 and have remained high. During the March 2009 sampling event TCE levels had slightly increased. A decrease in ORP and DO during post injection monitoring events was observed.

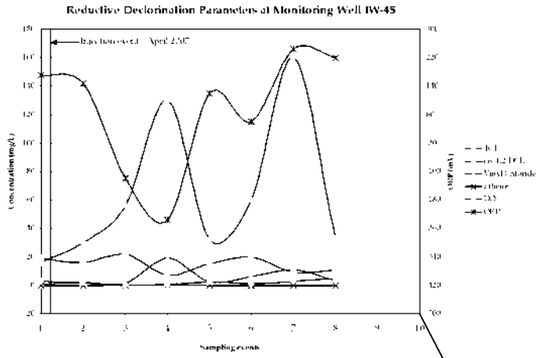
Well GW-8 is located on the other side of the sheet pile wall from the barrier, and it should not be impacted by the injection. The monitoring data for this well showed an increase in cis-1,2-DCE in the first 8 months after the EOS™ injection. Cis-1,2-DCE levels then fell to close to their original levels in the two subsequent monitoring events before rising again. By March 2009 81 percent of TCE appeared to have been removed.

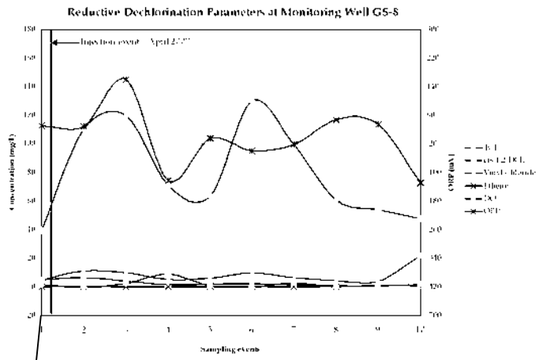
Significant ethene levels were not detected in this well. The ORP also fell during the December 2007 monitoring event and remained fairly low until it increased during the March 2009 monitoring event.

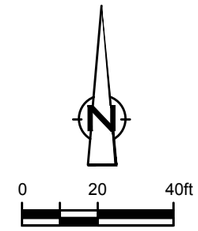
The direction of groundwater flow suggested that it was unlikely that well IW-55 would be impacted by the injection; however, the data for this well showed a significant decrease in ORP after the injection. It is possible that some lateral spread of the injected material may have resulted in the anaerobic treatment zone extending to this location. Cis-1,2-DCE levels initially increased at this well and then decreased to below pre-injection levels. Vinyl chloride levels have been low throughout most of the treatment but increased slightly in June 2008 and have since remained fairly constant. Significant ethene levels were not detected in this well. DO and ORP have remained low since the EOS™ injection. TCE levels have always been low at this location.

Based on the review of the data collected during the post-injection monitoring events, it appears that the anaerobic zone extends at least 20 feet upgradient and 50 feet downgradient of the injection wells. Some lateral dispersion also appears to have occurred since reductions in parameter levels were observed 50 feet downgradient on the edge of the groundwater flow path.









SHEET PILE WALL

TYLER POND

MW18-02

MW18-09

DNAPL RECOVERY WELLS

MW18-01

MW19-18

MW18-04

MW18-05

MW18-08

MW18-03

ABANDONED OUTFALL #12

OUTFALL #13

GS-8

IW-41

IW-44

IW-45

MW-18-45

IW-50

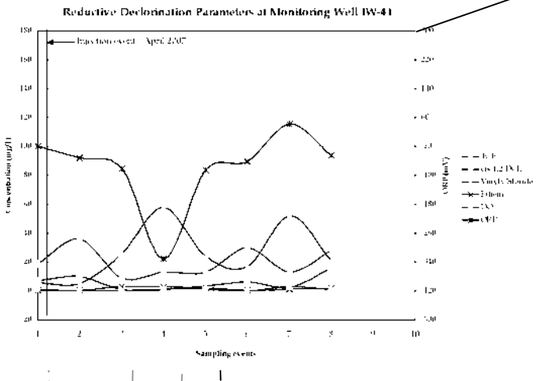
IW-55

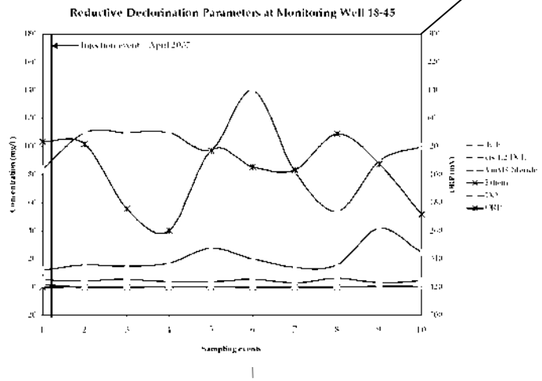
MW-6

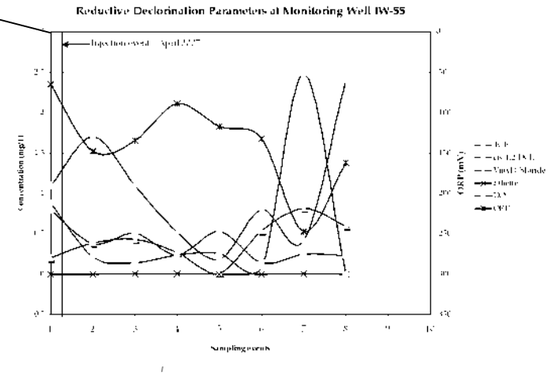
PERMANENT SEWER PLUG

R.S.

SAMPLE EVENT	DATE
1	MAR. 2007
2	JUN. 2007
3	SEP. 2007
4	DEC. 2007
5	MAR. 2008
6	JUN. 2008
7	SEP. 2008
8	MAR. 2009
9	APR. 2010
10	OCT. 2010







NOTES:
1. NATURAL ATTENUATION MONITORING WAS COMPLETED AS AGREED TO WITH THE MDEQ FOR A PERIOD OF 2 YEARS FOLLOWING INJECTION OF THE EOS IN APRIL 2007.
2. WELLS IW-44, IW-41, IW-45, IW-55 SAMPLED AS PART OF THE NATURAL ATTENUATION MONITORING.
3. SCALE REDUCED TO SHOW PARAMETER TRENDS IN GREATER DETAIL.

LEGEND

- EOS™ INJECTION WELL LOCATION
- EXISTING MONITORING WELL LOCATION
- EXISTING INJECTION WELL LOCATION
- EXISTING PIE□OMETER LOCATION
- COMPLIANCE POINT
- SENTINEL POINT
- STORM SEWER
- SANITARY SEWER
- FENCE
- EDGE OF WATER

figure H.7

EOS™ INJECTION PARAMETERS
SITE SUMMARY REPORT
FORMER GENERAL MOTORS
COMPANY VEHICLE OPERATIONS PROPERTY
Ypsilanti, Michigan

17303-T05(008)GN-WI002 MAY 20/2011

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-005*	*WG-17303-031207-JJ-033*	*WG-17303~060707-DR-032*	*WG-17303-060807-DR-032*	*WG-17303-060807-DR-037*	*WG-17303-090607-NRS-014*	*WG-17303-120507-DR-022*	*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/08/2007*	*06/08/2007*	*09/06/2007*	*12/05/2007*	*12/06/2007*	*03/25/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	1.7 U	--	--	3.3 UJ	--	5 U	--	2.5 U	2 U
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,1-Dichloroethane	mg/L	0.74	0.88	13	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	8.3 U	--	--	17 U	--	25 U	--	12 U	10 U
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	3.3 U	--	5 U	--	2.5 U	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	3.3 U	--	5 U	--	2.5 U	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	42 U	--	--	83 U	--	120 U	--	62 U	50 U
2-Hexanone	mg/L		1	ID	83 U	--	--	170 UJ	--	250 U	--	120 U	100 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	83 U	--	--	170 UJ	--	250 U	--	120 U	100 U
Acetone	mg/L	1.7	0.73	30	42 U	--	--	83 U	--	120 U	--	62 U	50 U
Benzene	mg/L	0.012 X	0.005 A	1.8	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Bromoform	mg/L	ID	0.08 A,W	ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Carbon disulfide	mg/L	ID	0.8	ID	8.3 U	--	--	17 U	--	25 U	--	12 U	10 U
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Chlorobenzene	mg/L	0.047	0.1 A	0.85	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Chloroethane	mg/L	ID	0.43	20	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 UJ
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	**40**[abc]	--	--	**110**[abc]	--	**120**[abc]	--	**71**[abc]	**64**[abc]
cis-1,3-Dichloropropene	mg/L				1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Cyclohexane	mg/L			ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Ethylbenzene	mg/L	0.018	0.074 E	0.32	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Isopropylbenzene	mg/L	ID	0.8	ID	8.3 U	--	--	17 U	--	25 U	--	12 U	10 U
Methyl acetate	mg/L				17 U	--	--	33 U	--	50 U	--	25 U	20 U
Methyl cyclohexane	mg/L				1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	8.3 U	--	--	17 U	--	25 U	--	12 U	10 U
Methylene chloride	mg/L	0.047 X	0.005 A	17	8.3 U	--	--	17 U	--	25 U	--	12 U	10 U
Styrene	mg/L	0.08	0.1 A	2.9	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Toluene	mg/L	0.14	0.79 E	1.7	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	1.7 U	--	--	3.3 U	--	5 U	--	**0.5 J**[b]	**0.47 J**[b]
trans-1,3-Dichloropropene	mg/L				1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	**4.9**[abc]	--	--	**6.5**[abc]	--	**4.1 J**[abc]	--	**1.6 J**[ab]	**1.9 J**[ab]
Trichlorofluoromethane (CFC-11)	mg/L		2.6		1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	1.7 U	--	--	3.3 U	--	5 U	--	2.5 U	2 U
Vinyl chloride	mg/L	0.015	0.002 A	17	**4.8**[ab]	--	--	**11**[ab]	--	**9.9**[ab]	--	**5.3**[ab]	**6**[ab]
Xylene (total)	mg/L	0.035	0.28 E	0.63	3.3 U	--	--	6.7 U	--	10 U	--	5 U	4 U
Gas													
Ethane	mg/L				0.00028 J	--	--	0.00029 J	--	0.0005 U	--	0.0005 U	0.00036 J
Ethene	mg/L				0.064	--	--	0.022	--	0.015	--	0.014	0.034

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-005*	*WG-17303-031207-JJ-033*	*WG-17303~060707-DR-032*	*WG-17303-060807-DR-032*	*WG-17303-060807-DR-037*	*WG-17303-090607-NRS-014*	*WG-17303-120507-DR-022*	*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/08/2007*	*06/08/2007*	*09/06/2007*	*12/05/2007*	*12/06/2007*	*03/25/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.023	--	--	0.013	--	0.0094	--	0.014	0.016
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	--	--	--	--	0.28[b]
Antimony	mg/L	0.002 X	0.006 A	2.3	0.00028 J	--	--	0.00022 J	--	0.00049 J	--	0.00032 J	0.002 U
Arsenic	mg/L	0.05 X	0.01 A	0.68	0.005 U	--	--	0.0048 J	--	0.0064	--	0.0136[b]	0.0038 J
Barium	mg/L	1.866 X	2 A	10.7	0.199	--	--	0.177	--	0.184	--	0.193	0.167
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	--	--	0.001 U	--	0.001 U	--	0.001 U	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.000088 J	--	--	0.00011 J	--	0.00012 J	--	0.0005 U	0.0005 U
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.0021 J	--	--	0.005 U	--	0.005 U	--	0.005 U	0.005 U
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	--	--	0.01 U	--	0.01 U	--	0.01 U	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	0.0088	--	--	0.0056 J	--	0.0031 J	--	0.0072	0.0091
Copper	mg/L	0.0287	1 E	0.0972	0.0042 U	--	--	0.0036 U	--	0.0038	--	0.0033	0.00065 J
Iron	mg/L		0.3 E		2.53[b]	--	--	1.41 J[b]	--	--	--	4.43[b]	1.37[b]
Iron (Dissolved)	mg/L		0.3 E		0.653[b]	--	--	0.0766 J	--	0.052 J	--	0.1 U	0.47[b]
Lead	mg/L	0.014 X	0.004 L	0.779	0.0026 J	--	--	0.003 U	--	0.003 U	--	0.003 U	0.003 U
Manganese	mg/L	3.6 X	0.05 E	27.6	2.47[b]	--	--	1.93[b]	--	1.4[b]	--	1.99[b]	2.09[b]
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	2.55[b]	--	--	1.94[b]	--	1.74[b]	--	1.71[b]	2.22[b]
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	--	--	0.0002 U	--	0.0002 U	--	0.0002 U	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	0.0087 J	--	--	0.0093 J	--	0.0058 J	--	0.0088 J	0.0083 J
Selenium	mg/L	0.005	0.05 A	0.12	0.0011 J	--	--	0.002 U	--	0.002 U	--	0.002 U	0.002 U
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	--	--	0.0002 U	--	0.0002 U	--	0.0002 U	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	0.000035 J	--	--	0.001 U	--	0.000054 J	--	0.001 U	0.001 U
Vanadium	mg/L	0.012	0.0045	0.22	0.004 U	--	--	0.004 U	--	0.0026 J	--	0.00095 J	0.00081 J
Zinc	mg/L	0.375	2.4	0.745	0.0169 U	--	--	0.041	--	0.0129 U	--	0.0134 U	0.0054 J
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	--	0.0001 U	--	--	0.0001 U
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	95.0	2030	--	--	--	395	--	--
Aerobic Total Microbial Population	mg/L				--	890	6020	--	--	--	5520	--	--
Alkalinity, Bicarbonate	mg/L				480	--	--	420	--	480	--	560	510
Alkalinity, Carbonate	mg/L				5.0 U	--	--	7.8	--	5.0 U	--	5.0 U	2.4 J
Alkalinity, Total (as CaCO3)	mg/L				480	--	--	420	--	480	--	560	520
Ammonia	mg/L	CC	10 N		0.6	--	--	0.9	--	1.7	--	2.0	1.9
Anaerobic TCE Specific Microbial Population	mg/L				--	110	1450	--	--	--	2150	--	--
Anaerobic Total Microbial Population	mg/L				--	4840	2200	--	--	--	5540	--	--
Biochemical Oxygen Demand (BOD)	mg/L				2	--	--	4	--	2 U	--	2 U	2 U
Chemical Oxygen Demand (COD)	mg/L				85	--	--	130 J	--	110	--	96	76 J
Nitrate (as N)	mg/L		10 A,N	NLS	0.10 U	--	--	0.10 UJ	--	0.10 U	--	0.10 U	0.10 U
Nitrite (as N)	mg/L		1 A,N		0.93	--	--	0.10 U	--	0.10 UJ	--	0.10 U	0.10 U
Phosphorus	mg/L	EE	63		0.1 U	--	--	0.1 U	--	0.03 J	--	0.04 J	0.2
Sulfate	mg/L		250 E		184	--	--	154	--	134	--	165	158 J
Sulfide	mg/L				--	--	--	--	--	--	--	--	--
Sulfide (Acid Soluble)	mg/L				1.0 U	--	--	2.8	--	1.0 U	--	1.0 U	1.2 U
Total Organic Carbon (TOC)	mg/L				15	--	--	23	--	18	--	--	15 J
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*GS-8*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-005*	*WG-17303-031207-JJ-033*	*WG-17303~060707-DR-032*	*WG-17303-060807-DR-032*	*WG-17303-060807-DR-037*	*WG-17303-090607-NRS-014*	*WG-17303-120507-DR-022*	*GW-17303-120607-DR-022*	*WG-17303-032508-DR-004*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/08/2007*	*06/08/2007*	*09/06/2007*	*12/05/2007*	*12/06/2007*	*03/25/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				1.789	--	--	--	2.11	2.407	--	2.476	2.2
Dissolved Oxygen, Field	mg/L				1.32	--	--	--	0.14	2.33	--	8.99	0.63
ORP, Field	millivolts				30	--	--	--	29	160	--	-122	-5
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.91	--	--	--	6.77	6.93	--	6.96	6.94
Temperature, Ambient	Deg F				20	--	--	--	78	75	--	--	35
Temperature, Field	Deg C				3.11	--	--	--	18.11	18.13	--	6.6	5.41
Turbidity (Field)	NTU				14	--	--	--	52.3	27.07	--	149.1	76.2

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualified as an estimated quantity.
UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.
R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~061908-DR-016*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-030807-EV-006*	*WG-17303-031207-JJ-034*	*WG-17303-042007-JJ-001*	*WG-17303-042007-JJ-002*	*WG-17303~060707-DR-031*
Sample Date:		*Interface*			*06/18/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*04/20/2007*	*04/20/2007*	*06/07/2007*
Sample Type:												*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	--	3.3 U	5 UJ	2 U	0.62 U	--	--	--	--
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,1-Dichloroethane	mg/L	0.74	0.88	13	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	--	17 U	25 U	10 U	3.1 U	--	--	--	--
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	--	83 U	120 U	50 U	16 U	--	--	--	--
2-Hexanone	mg/L		1	ID	--	170 U	250 U	100 U	31 U	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	--	170 U	250 U	100 U	31 U	--	--	--	--
Acetone	mg/L	1.7	0.73	30	--	83 U	120 U	50 U	16 U	--	--	--	--
Benzene	mg/L	0.012 X	0.005 A	1.8	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Bromoform	mg/L	ID	0.08 A,W	ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Carbon disulfide	mg/L	ID	0.8	ID	--	17 U	25 U	10 U	3.1 U	--	--	--	--
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Chlorobenzene	mg/L	0.047	0.1 A	0.85	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Chloroethane	mg/L	ID	0.43	20	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	--	**130 abc**	**99 abc**	**61 abc**	**19 abc**	--	--	--	--
cis-1,3-Dichloropropene	mg/L				--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Cyclohexane	mg/L			ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Ethylbenzene	mg/L	0.018	0.074 E	0.32	--	3.3 UJ	5 U	2 U	0.62 U	--	--	--	--
Isopropylbenzene	mg/L	ID	0.8	ID	--	17 U	25 U	10 U	3.1 U	--	--	--	--
Methyl acetate	mg/L				--	33 U	50 U	20 U	6.2 U	--	--	--	--
Methyl cyclohexane	mg/L				--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	--	17 U	25 U	10 U	3.1 U	--	--	--	--
Methylene chloride	mg/L	0.047 X	0.005 A	17	--	17 U	25 U	10 U	3.1 U	--	--	--	--
Styrene	mg/L	0.08	0.1 A	2.9	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Toluene	mg/L	0.14	0.79 E	1.7	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	--	**0.7 J b**	5 U	**0.52 J b**	**0.14 J b**	--	--	--	--
trans-1,3-Dichloropropene	mg/L				--	3.3 U	5 UJ	2 U	0.62 U	--	--	--	--
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	--	**2.5 J ab**	**1.4 J ab**	**0.95 J ab**	**7.2 abc**	--	--	--	--
Trichlorofluoromethane (CFC-11)	mg/L		2.6		--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	--	3.3 U	5 U	2 U	0.62 U	--	--	--	--
Vinyl chloride	mg/L	0.015	0.002 A	17	--	**10 ab**	**6.5 ab**	**4.4 ab**	**5.9 ab**	--	--	--	--
Xylene (total)	mg/L	0.035	0.28 E	0.63	--	6.7 UJ	10 U	4 U	1.2 U	--	--	--	--
Gas													
Ethane	mg/L				--	0.002	0.0005 U	0.00027 J	0.00079	--	--	--	--
Ethene	mg/L				--	0.024	0.0089	0.032	0.48	--	--	--	--

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~061908-DR-016*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-030807-EV-006*	*WG-17303-031207-JJ-034*	*WG-17303-042007-JJ-001*	*WG-17303-042007-JJ-002*	*WG-17303~060707-DR-031*
Sample Date:		*Interface*			*06/18/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*04/20/2007*	*04/20/2007*	*06/07/2007*
Sample Type:												*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		--	0.018	0.0098	0.039	0.019	--	--	--	--
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	--	0.00018 J	0.00027 J	0.00015 J	0.00045 J	--	--	--	--
Arsenic	mg/L	0.05 X	0.01 A	0.68	--	0.005 U	0.0049 J	0.0061	0.005 U	--	--	--	--
Barium	mg/L	1.866 X	2 A	10.7	--	0.122	0.175	0.19	0.036 J	--	--	--	--
Beryllium	mg/L	0.0753	0.004 A	1.35	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--	--
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--
Chromium Total	mg/L	0.011	0.1 A	0.032D	--	0.005 U	0.005 U	0.0023 J	0.005 U	--	0.005 U	0.005 U	--
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	--	0.01 U	0.01 UJ	0.01 U	0.02 U	--	0.01 U	0.01 U	--
Cobalt	mg/L	0.1	0.04	0.74	--	0.0034 J	0.0036 J	0.0106	0.0015 J	--	--	--	--
Copper	mg/L	0.0287	1 E	0.0972	--	0.002 U	0.0038	0.002	0.0033 U	--	--	--	--
Iron	mg/L		0.3 E		--	--	--	**2.61**[b]	**1.53**[b]	--	--	--	--
Iron (Dissolved)	mg/L		0.3 E		--	0.129	0.1 U	**1.18**[b]	**1.53**[b]	--	--	--	--
Lead	mg/L	0.014 X	0.004 L	0.779	--	0.003 U	0.0022 J	0.003 U	0.0025 J	--	--	--	--
Manganese	mg/L	3.6 X	0.05 E	27.6	--	**1.29**[b]	**0.916**[b]	**1.95**[b]	**12.6**[ab]	--	--	--	--
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	--	**1.18**[b]	**1.35**[b]	**2.02**[b]	**12.8**[ab]	--	--	--	--
Mercury	mg/L	0.0000013	0.002 A	0.0028D	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	--	--	--
Nickel	mg/L	0.165	0.1 A	2.97	--	0.0068 J	0.0083 J	0.0103 J	0.0086 J	--	--	--	--
Selenium	mg/L	0.005	0.05 A	0.12	--	0.002 U	0.002 U	0.002 U	**0.0071**[a]	--	--	--	--
Silver	mg/L	0.0002 M	0.034	0.0011	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	--	--	--
Thallium	mg/L	0.002 X	0.002 A	0.094	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--	--
Vanadium	mg/L	0.012	0.0045	0.22	--	0.004 U	0.0015 J	0.004 U	**0.0058**[b]	--	--	--	--
Zinc	mg/L	0.375	2.4	0.745	--	0.01 U	0.01 U	0.01 U	0.0103 U	--	--	--	--
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	--	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				255	--	1880	--	--	115	--	--	125
Aerobic Total Microbial Population	mg/L				910	--	3020	--	--	155	--	--	475
Alkalinity, Bicarbonate	mg/L				--	550	590	470	500	--	--	--	--
Alkalinity, Carbonate	mg/L				--	33	5.0 U	5.0 U	5.0 U	--	--	--	--
Alkalinity, Total (as CaCO3)	mg/L				--	580	590	470	500	--	--	--	--
Ammonia	mg/L	CC	10 N		--	1.7	2.8	3.5	5.6	--	--	--	--
Anaerobic TCE Specific Microbial Population	mg/L				60	--	3720	--	--	30.0	--	--	95
Anaerobic Total Microbial Population	mg/L				13480	--	625	--	--	4880	--	--	670
Biochemical Oxygen Demand (BOD)	mg/L				--	2 U	2 U	2 U	13	--	--	--	--
Chemical Oxygen Demand (COD)	mg/L				--	160	140	86	100	--	--	--	--
Nitrate (as N)	mg/L		10 A,N	NLS	--	0.10 U	0.10 J	0.10 U	0.84	--	--	--	--
Nitrite (as N)	mg/L		1 A,N		--	0.10 U	0.10 U	0.10 UJ	0.70	--	--	--	--
Phosphorus	mg/L	EE	63		--	0.1 U	0.1 U	0.1	0.1 U	--	--	--	--
Sulfate	mg/L		250 E		--	92.3	131	**261**[b]	72.8	--	--	--	--
Sulfide	mg/L				--	1.0 UJ	1.0 U	1.0 U	--	--	--	--	--
Sulfide (Acid Soluble)	mg/L				--	--	--	--	1.0 U	--	--	--	--
Total Organic Carbon (TOC)	mg/L				--	22	16	18	24	--	--	--	--
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*GS-8*	*GS-8*	*GS-8*	*GS-8*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~061908-DR-016*	*WG-17303-061908-DR-016*	*WG-17303-092508-DR-052*	*WG-17303-032609-CB-094*	*WG-17303-030807-EV-006*	*WG-17303-031207-JJ-034*	*WG-17303-042007-JJ-001*	*WG-17303-042007-JJ-002*	*WG-17303~060707-DR-031*
Sample Date:		*Interface*			*06/18/2008*	*06/19/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*04/20/2007*	*04/20/2007*	*06/07/2007*
Sample Type:												*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				--	2.107	21.22	1411	1.476	--	1.593	--	--
Dissolved Oxygen, Field	mg/L				--	0.41	2.6	411	1.54	--	0.39	--	--
ORP, Field	millivolts				--	-40	-22	47	-19	--	-22.7	--	--
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		--	6.93	6.79	6.98	6.84	--	6.72	--	--
Temperature, Ambient	Deg F				--	52	75	45	35	--	70	--	--
Temperature, Field	Deg C				--	14.72	18.97	44.94	7.51	--	11.59	--	--
Turbidity (Field)	NTU				--	26.8	72.8	33.4	4.82	--	1.25	--	--

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-060707-DR-031*	*WG-17303-090507-EV-007*	*WG-17303-090607-EV-007*	*WG-17303-120407-DR-003*	*WG-17303-032408-DR-001*	*WG-17303~061808-DR-005*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*
Sample Date:		*Interface*			*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 UJ	0.83 U
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,1-Dichloroethane	mg/L	0.74	0.88	13	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	5 U	3.6 U	--	10 U	5 U	--	4.2 U	12 U	4.2 U
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	1 U	0.71 U	--	2 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	1 U	0.71 U	--	2 U	--	--	--	--	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	25 U	18 U	--	50 U	25 U	--	21 U	62 U	21 U
2-Hexanone	mg/L		1	ID	50 U	36 U	--	100 U	50 U	--	42 U	120 U	42 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	50 UJ	36 U	--	100 U	50 U	--	42 U	120 U	42 U
Acetone	mg/L	1.7	0.73	30	25 U	18 U	--	50 U	25 U	--	21 U	62 U	21 U
Benzene	mg/L	0.012 X	0.005 A	1.8	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Bromoform	mg/L	ID	0.08 A,W	ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Carbon disulfide	mg/L	ID	0.8	ID	5 U	3.6 U	--	10 U	5 U	--	4.2 U	12 U	4.2 U
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Chlorobenzene	mg/L	0.047	0.1 A	0.85	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Chloroethane	mg/L	ID	0.43	20	1 U	0.71 U	--	2 U	1 UJ	--	0.83 U	2.5 U	0.83 U
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	**36[abc]**	**9[ab]**	--	**13[abc]**	**13[abc]**	--	**30[abc]**	**13[abc]**	**28[abc]**
cis-1,3-Dichloropropene	mg/L				1 U	0.71 U	--	2 U	1 U	--	0.83 UJ	2.5 U	0.83 U
Cyclohexane	mg/L			ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Ethylbenzene	mg/L	0.018	0.074 E	0.32	1 U	0.71 U	--	2 U	1 U	--	0.83 UJ	2.5 U	0.83 U
Isopropylbenzene	mg/L	ID	0.8	ID	5 U	3.6 U	--	10 U	5 U	--	4.2 U	12 U	4.2 U
Methyl acetate	mg/L				10 UJ	7.1 U	--	20 U	10 U	--	8.3 U	25 U	8.3 U
Methyl cyclohexane	mg/L				1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	5 U	3.6 U	--	10 U	5 U	--	4.2 U	12 U	4.2 U
Methylene chloride	mg/L	0.047 X	0.005 A	17	5 U	3.6 U	--	**1.1 J[ab]**	5 U	--	4.2 U	12 U	4.2 U
Styrene	mg/L	0.08	0.1 A	2.9	1 U	0.71 U	--	2 U	1 U	--	0.83 UJ	2.5 U	0.83 U
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Toluene	mg/L	0.14	0.79 E	1.7	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	**0.19 J[b]**	0.71 U	--	2 U	1 U	--	**0.17 J[b]**	2.5 U	0.83 U
trans-1,3-Dichloropropene	mg/L				1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 UJ	0.83 U
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	**10[abc]**	**0.73[ab]**	--	**1.1 J[ab]**	**3.3[ab]**	--	**6.4[abc]**	2.5 U	**16[abc]**
Trichlorofluoromethane (CFC-11)	mg/L		2.6		1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	1 U	0.71 U	--	2 U	1 U	--	0.83 U	2.5 U	0.83 U
Vinyl chloride	mg/L	0.015	0.002 A	17	**5.1[ab]**	**26[abc]**	--	**58[abc]**	**24[abc]**	--	**17[ab]**	**52[abc]**	**21[abc]**
Xylene (total)	mg/L	0.035	0.28 E	0.63	2 U	1.4 U	--	4 U	2 U	--	1.7 UJ	5 U	1.7 U
Gas													
Ethane	mg/L				0.00098	0.001 U	--	0.001 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U
Ethene	mg/L				0.6	3	--	3.1	2	--	0.44	1.3	1.7

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-060707-DR-031*	*WG-17303-090507-EV-007*	*WG-17303-090607-EV-007*	*WG-17303-120407-DR-003*	*WG-17303-032408-DR-001*	*WG-17303~061808-DR-005*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*
Sample Date:		*Interface*			*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.013	0.076	--	0.13	0.44	--	0.093	0.15	0.62
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	0.05 U	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.00032 J	0.00041 J	--	0.00034 J	0.00047 J	--	0.00033 J	0.00022 J	0.00048 J
Arsenic	mg/L	0.05 X	0.01 A	0.68	0.005 U	0.008	--	0.012[b]	0.0083	--	0.0067	0.0099	0.0041 J
Barium	mg/L	1.866 X	2 A	10.7	0.17	0.666	--	0.769	0.827	--	0.355	0.576	0.398
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.005 U	0.0017 J	--	0.0049 J	0.005 U	--	0.005 U	0.005 U	0.0043 J
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	0.01 U	--	0.01 U	0.01 U	--	0.01 U	0.01	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	0.007 U	0.0035 J	--	0.0019 J	0.007 U	--	0.007 U	0.007 U	0.0029 J
Copper	mg/L	0.0287	1 E	0.0972	0.0027 U	0.002 U	--	0.002 U	0.0013 J	--	0.0022	0.00088 J	0.0024
Iron	mg/L		0.3 E		2.71 J[b]	--	--	16.3[b]	25.3[b]	--	14.3[b]	--	19.1[b]
Iron (Dissolved)	mg/L		0.3 E		3.35[b]	14.4[b]	--	15.8[b]	27.7[b]	--	14.2[b]	18.1[b]	18.9[b]
Lead	mg/L	0.014 X	0.004 L	0.779	0.003 U	0.003 U	--	0.003 U	0.003 U	--	0.003 U	0.003 U	0.003
Manganese	mg/L	3.6 X	0.05 E	27.6	8.59[ab]	13.1[ab]	--	10.3[ab]	14.5[ab]	--	10.1[ab]	6.47[ab]	7.06[ab]
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	8.85[ab]	14.2[ab]	--	9.85[ab]	14.4[ab]	--	9.36[ab]	5.69[ab]	7.4[ab]
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	0.000096 J[a]	--	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	0.0062 J	0.0165 J	--	0.014 J	0.0108 J	--	0.0068 J	0.0101 J	0.0094 J
Selenium	mg/L	0.005	0.05 A	0.12	0.0153[a]	0.002 U	--	0.002 U	0.0114[a]	--	0.0076[a]	0.002 U	0.0282[a]
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	0.001 U	0.000025 J	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.00022 J
Vanadium	mg/L	0.012	0.0045	0.22	0.005[b]	0.0027 J	--	0.0032 J	0.004	--	0.0025 J	0.0022 J	0.004 U
Zinc	mg/L	0.375	2.4	0.745	0.01 U	0.0151 U	--	0.0314	0.0052 J	--	0.01 U	0.01 U	0.01 U
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	--	--	0.000072 J
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	--	--	15.0	--	35	--	1130	--
Aerobic Total Microbial Population	mg/L				--	--	--	70.0	--	15	--	25	--
Alkalinity, Bicarbonate	mg/L				460	--	400	440	470	--	590	540	560
Alkalinity, Carbonate	mg/L				5.2	--	5.0 U	5.0 U	5.0 U	--	4.0 J	5.0 U	5.0 U
Alkalinity, Total (as CaCO3)	mg/L				470	--	400	440	470	--	600	540	560
Ammonia	mg/L	CC	10 N		4.3	2.5	--	3.0	5.4	--	6.6	3.3	9.0
Anaerobic TCE Specific Microbial Population	mg/L				--	--	--	55.0	--	80	--	465	--
Anaerobic Total Microbial Population	mg/L				--	--	--	1660	--	1690	--	20	--
Biochemical Oxygen Demand (BOD)	mg/L				18	--	82	19	85	--	30	2 U	34 J
Chemical Oxygen Demand (COD)	mg/L				96 J	250	--	120	220 J	--	130	110	160
Nitrate (as N)	mg/L		10 A,N	NLS	1.7	--	0.10 U	0.10 U	2.3	--	0.60	R	3.8
Nitrite (as N)	mg/L		1 A,N		0.043 J	--	0.10 UJ	0.10 U	0.20	--	0.10 U	0.10 U	0.10 UJ
Phosphorus	mg/L	EE	63		0.1 U	0.1 U	--	0.03 J	0.1 U	--	0.1 U	0.1 U	0.1
Sulfate	mg/L		250 E		62.0 J	--	7.4	50.5	53.5	--	34.6	95.4	86.1
Sulfide	mg/L				--	--	--	--	--	--	1.0 UJ	1.0 U	1.0 U
Sulfide (Acid Soluble)	mg/L				3.1	0.86 J	--	0.90 J	1.0 U	--	--	--	--
Total Organic Carbon (TOC)	mg/L				23	63	--	22	71 J	--	29	18	49
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*	*IW-41*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-060707-DR-031*	*WG-17303-090507-EV-007*	*WG-17303-090607-EV-007*	*WG-17303-120407-DR-003*	*WG-17303-032408-DR-001*	*WG-17303~061808-DR-005*	*WG-17303-061808-DR-005*	*WG-17303-092508-DR-057*	*WG-17303-032609-CB-093*
Sample Date:		*Interface*			*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*
Sample Type:													
Parameter:	***Units***	***a***	***b***	***c***									
Conductivity Field	mS/cm				1.023	2.562	--	2.288	2.14	--	1.674	0.0015	1360
Dissolved Oxygen, Field	mg/L				0.02	0	--	1.15	1.23	--	0.07	3.20	801
ORP, Field	millivolts				-51	-82	--	-331	-85	--	-61	42	-44
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.8	6.72	--	6.72	6.86	--	6.78	6.97	6.84
Temperature, Ambient	Deg F				78	78	--	--	32	--	55	75	45
Temperature, Field	Deg C				15.3	19.65	--	12.17	8.1	--	13.56	29.78	49.18
Turbidity (Field)	NTU				0.43	1.55	--	0	1.43	--	3.95	2.15	2.31

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualified as an estimated quantity.
UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.
R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-014*	*WG-17303-031207-JJ-035*	*WG-17303~060707-DR-026*	*WG-17303-060707-DR-026*	*WG-17303-090507-EV-001*	*WG-17303-090607-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303~061808-DR-002*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,1-Dichloroethane	mg/L	0.74	0.88	13	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	12 U	--	--	12 U	25 U	--	10 U	10 U	--
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	2.5 U	5 U	--	2 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	2.5 U	5 U	--	2 U	--	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	62 U	--	--	62 U	120 U	--	50 U	50 U	--
2-Hexanone	mg/L		1	ID	120 U	--	--	120 UJ	250 U	--	100 U	100 U	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	120 U	--	--	120 UJ	250 U	--	100 U	100 U	--
Acetone	mg/L	1.7	0.73	30	62 U	--	--	62 U	120 U	--	50 U	50 U	--
Benzene	mg/L	0.012 X	0.005 A	1.8	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Bromoform	mg/L	ID	0.08 A,W	ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Carbon disulfide	mg/L	ID	0.8	ID	12 U	--	--	12 U	25 U	--	10 U	10 U	--
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Chlorobenzene	mg/L	0.047	0.1 A	0.85	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Chloroethane	mg/L	ID	0.43	20	2.5 U	--	--	2.5 U	5 U	--	2 U	2 UJ	--
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	**57**[abc]	--	--	**87**[abc]	**120**[abc]	--	**62**[abc]	**71**[abc]	--
cis-1,3-Dichloropropene	mg/L				2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Cyclohexane	mg/L			ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Ethylbenzene	mg/L	0.018	0.074 E	0.32	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Isopropylbenzene	mg/L	ID	0.8	ID	12 U	--	--	12 U	25 U	--	10 U	10 U	--
Methyl acetate	mg/L				25 U	--	--	25 UJ	50 U	--	20 U	20 U	--
Methyl cyclohexane	mg/L				2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	12 U	--	--	12 U	25 U	--	10 U	10 U	--
Methylene chloride	mg/L	0.047 X	0.005 A	17	12 U	--	--	12 U	25 U	--	10 U	10 U	--
Styrene	mg/L	0.08	0.1 A	2.9	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Toluene	mg/L	0.14	0.79 E	1.7	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	**0.6 J**[b]	--	--	**0.77 J**[b]	**1.1 J**[b]	--	**0.7 J**[b]	**0.77 J**[b]	--
trans-1,3-Dichloropropene	mg/L				2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	**4.3**[abc]	--	--	**1.8 J**[ab]	**1.7 J**[ab]	--	**0.93 J**[ab]	**3.6**[abc]	--
Trichlorofluoromethane (CFC-11)	mg/L		2.6		2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	2.5 U	--	--	2.5 U	5 U	--	2 U	2 U	--
Vinyl chloride	mg/L	0.015	0.002 A	17	**17**[ab]	--	--	**18**[abc]	**35**[abc]	--	**26**[abc]	**31**[abc]	--
Xylene (total)	mg/L	0.035	0.28 E	0.63	5 U	--	--	5 U	10 U	--	4 U	4 U	--
Gas													
Ethane	mg/L				0.00065	--	--	0.00045 J	0.0019	--	0.0005 U	0.0099	--
Ethene	mg/L				0.048	--	--	0.036	0.26	--	0.97	1.3	--

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-014*	*WG-17303-031207-JJ-035*	*WG-17303~060707-DR-026*	*WG-17303-060707-DR-026*	*WG-17303-090507-EV-001*	*WG-17303-090607-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303~061808-DR-002*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.07	--	--	0.048	0.17	--	0.41 J	0.5	--
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	--	--	--	0.036 J	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.00033 J	--	--	0.00018 J	0.00016 J	--	0.002 U	0.00013 J	--
Arsenic	mg/L	0.05 X	0.01 A	0.68	0.005 U	--	--	0.005 U	0.005 U	--	0.005 U	0.0135[b]	--
Barium	mg/L	1.866 X	2 A	10.7	0.0145 J	--	--	0.0123 J	0.0093 J	--	0.0114 J	0.162	--
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	--	--	0.001 U	0.001 U	--	0.001 U	0.001 U	--
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	--	--	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	--
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.005 U	--	--	0.005 U	0.005 U	--	0.005 U	0.005 U	--
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.003 J	--	--	0.01 U	0.01 U	--	0.01 U	0.01 U	--
Cobalt	mg/L	0.1	0.04	0.74	0.007 U	--	--	0.007 U	0.007 U	--	0.007 U	0.007 U	--
Copper	mg/L	0.0287	1 E	0.0972	0.003 U	--	--	0.002 U	0.002 U	--	0.002 U	0.002 U	--
Iron	mg/L		0.3 E		0.112	--	--	0.0369 J	--	--	0.1 U	0.759[b]	--
Iron (Dissolved)	mg/L		0.3 E		0.1 U	--	--	0.1 U	0.1 U	--	0.1 U	0.443[b]	--
Lead	mg/L	0.014 X	0.004 L	0.779	0.003 U	--	--	0.003 U	0.003 U	--	0.003 U	0.0021 J	--
Manganese	mg/L	3.6 X	0.05 E	27.6	11.8[ab]	--	--	9.86[ab]	8.72[ab]	--	9.88[ab]	14.8[ab]	--
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	11.4[ab]	--	--	7.55[ab]	8.4[ab]	--	9.45[ab]	13.3[ab]	--
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	--	--	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	--
Nickel	mg/L	0.165	0.1 A	2.97	0.02 U	--	--	0.0065 J	0.0059 J	--	0.0069 J	0.0107 J	--
Selenium	mg/L	0.005	0.05 A	0.12	0.00098 J	--	--	0.002 U	0.002 U	--	0.0013 J	0.002 U	--
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	--	--	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	--
Thallium	mg/L	0.002 X	0.002 A	0.094	0.000026 J	--	--	0.001 U	0.000024 J	--	0.001 U	0.001 U	--
Vanadium	mg/L	0.012	0.0045	0.22	0.012[b]	--	--	0.01[b]	0.0064[b]	--	0.0095[b]	0.0085[b]	--
Zinc	mg/L	0.375	2.4	0.745	0.0235 U	--	--	0.0101 U	0.01 U	--	0.01 U	0.0066 J	--
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	260	805	--	--	--	10.0	--	15
Aerobic Total Microbial Population	mg/L				--	790	1370	--	--	--	20800	--	11520
Alkalinity, Bicarbonate	mg/L				570	--	--	530	--	360	490	360	--
Alkalinity, Carbonate	mg/L				5.0 U	--	--	5.8	--	10 J	5.0 U	5.0 U	--
Alkalinity, Total (as CaCO3)	mg/L				570	--	--	540	--	370	490	360	--
Ammonia	mg/L	CC	10 N		2.6	--	--	1.3	1.1	--	1.2	1.6	--
Anaerobic TCE Specific Microbial Population	mg/L				--	45.0	930	--	--	--	260	--	70
Anaerobic Total Microbial Population	mg/L				--	205	80	--	--	--	30400	--	11680
Biochemical Oxygen Demand (BOD)	mg/L				2 U	--	--	2 U	--	2 U	27	16	--
Chemical Oxygen Demand (COD)	mg/L				100	--	--	88 J	120	--	110	130 J	--
Nitrate (as N)	mg/L		10 A,N	NLS	0.10 U	--	--	0.10 U	--	0.10 U	0.10 U	0.10 U	--
Nitrite (as N)	mg/L		1 A,N		0.89	--	--	0.10 U	--	0.10 UJ	0.10 UJ	0.10 U	--
Phosphorus	mg/L	EE	63		0.1 U	--	--	0.05 J	0.1 U	--	0.1 U	0.1 U	--
Sulfate	mg/L		250 E		123	--	--	168 J	--	31.1	22.3	28.9	--
Sulfide	mg/L				--	--	--	--	--	--	--	--	--
Sulfide (Acid Soluble)	mg/L				1.0 U	--	--	1.0 U	2.9	--	4.4	0.93 J	--
Total Organic Carbon (TOC)	mg/L				15	--	--	9	12	--	23	22 J	--
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*	*IW-44*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-030807-DR-014*	*WG-17303-031207-JJ-035*	*WG-17303~060707-DR-026*	*WG-17303-060707-DR-026*	*WG-17303-090507-EV-001*	*WG-17303-090607-EV-001*	*WG-17303-120407-DR-006*	*WG-17303-032408-DR-002*	*WG-17303~061808-DR-002*
Sample Date:		*Interface*			*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/06/2007*	*12/04/2007*	*03/24/2008*	*06/18/2008*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				1.992	--	--	2.578	2.806	--	2.309	2.35	--
Dissolved Oxygen, Field	mg/L				1.53	--	--	0.05	0	--	0.02	0.75	--
ORP, Field	millivolts				79	--	--	132	205	--	-398	-45	--
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.83	--	--	6.73	6.86	--	6.74	6.84	--
Temperature, Ambient	Deg F				20	--	--	78	78	--	--	32	--
Temperature, Field	Deg C				8.88	--	--	16.9	17.86	--	13.11	9.02	--
Turbidity (Field)	NTU				4.17	--	--	4.73	4.4	--	0.6	4.64	--

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*WG-17303-030807-DR-007*	*WG-17303-031207-JJ-036*	*WG-17303~060707-DR-029*	*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*
Sample Date:		*Interface*			*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	3.3 U	7.1 UJ	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,1-Dichloroethane	mg/L	0.74	0.88	13	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	17 U	36 U	31 U	3.1 U	--	--	4.2 U	10 U	25 U
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	--	--	--	0.83 U	2 U	5 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	--	--	--	0.83 U	2 U	5 U
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	83 U	180 U	160 U	16 U	--	--	21 U	50 U	120 U
2-Hexanone	mg/L		1	ID	170 U	360 U	310 U	31 U	--	--	42 U	100 U	250 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	170 U	360 U	310 U	31 U	--	--	42 UJ	100 U	250 U
Acetone	mg/L	1.7	0.73	30	83 U	180 U	160 U	16 U	--	--	21 U	50 U	120 U
Benzene	mg/L	0.012 X	0.005 A	1.8	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Bromoform	mg/L	ID	0.08 A,W	ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Carbon disulfide	mg/L	ID	0.8	ID	17 U	36 U	31 U	3.1 U	--	--	4.2 U	10 U	25 U
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Chlorobenzene	mg/L	0.047	0.1 A	0.85	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Chloroethane	mg/L	ID	0.43	20	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	**70**[abc]	**160**[abc]	**170**[abc]	**16**[abc]	--	--	**30**[abc]	**56**[abc]	**130**[abc]
cis-1,3-Dichloropropene	mg/L				3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Cyclohexane	mg/L			ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Ethylbenzene	mg/L	0.018	0.074 E	0.32	3.3 UJ	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Isopropylbenzene	mg/L	ID	0.8	ID	17 U	36 U	31 U	3.1 U	--	--	4.2 U	10 U	25 U
Methyl acetate	mg/L				33 U	71 U	62 U	6.2 U	--	--	8.3 UJ	20 U	50 U
Methyl cyclohexane	mg/L				3.3 UJ	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	17 U	36 U	31 U	3.1 U	--	--	4.2 U	10 U	25 U
Methylene chloride	mg/L	0.047 X	0.005 A	17	17 U	36 U	31 U	3.1 U	--	--	4.2 U	10 U	25 U
Styrene	mg/L	0.08	0.1 A	2.9	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Toluene	mg/L	0.14	0.79 E	1.7	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	**0.78 J**[b]	7.1 U	**1.3 J**[b]	**0.21 J**[b]	--	--	**0.31 J**[b]	**0.61 J**[b]	**0.99 J**[b]
trans-1,3-Dichloropropene	mg/L				3.3 U	7.1 UJ	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	3.3 U	7.1 U	**18**[abc]	**19**[abc]	--	--	**16**[abc]	**22**[abc]	**7.3**[abc]
Trichlorofluoromethane (CFC-11)	mg/L		2.6		3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	3.3 U	7.1 U	6.2 U	0.62 U	--	--	0.83 U	2 U	5 U
Vinyl chloride	mg/L	0.015	0.002 A	17	**95 J**[abc]	**51**[abc]	**11**[ab]	**0.62**[ab]	--	--	**2**[ab]	**1.5 J**[ab]	**19**[abc]
Xylene (total)	mg/L	0.035	0.28 E	0.63	6.7 UJ	14 U	12 U	1.2 U	--	--	1.7 U	4 U	10 U
Gas													
Ethane	mg/L				0.0034	0.0005 U	0.001 J	0.0005 U	--	--	0.0005 U	0.0005 U	0.001
Ethene	mg/L				0.55	1.8	0.14 J	0.00054	--	--	0.0019	0.0038	0.15

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*WG-17303-030807-DR-007*	*WG-17303-031207-JJ-036*	*WG-17303~060707-DR-029*	*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*
Sample Date:		*Interface*			*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.26	0.81 J	0.26	0.00099	--	--	0.0016	0.009	0.099
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.00015 J	0.00019 J	0.00013 J	0.00049 J	--	--	0.00027 J	0.002 U	0.002 U
Arsenic	mg/L	0.05 X	0.01 A	0.68	**0.0149**[b]	**0.0219**[b]	**0.0164**[b]	0.005 U	--	--	0.005 U	0.005 U	0.005 U
Barium	mg/L	1.866 X	2 A	10.7	0.071 J	0.346	0.335	0.0044 J	--	--	0.1 U	0.1 U	0.1 U
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	0.001 U	0.001 U	0.001 U	--	--	0.001 U	0.0003 J	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	0.0005 U	0.0005 U	0.0003 J	--	--	0.0005 U	0.0005 U	0.0005 U
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.005 U	0.005 U	0.0026 J	0.005	--	--	0.0021 J	0.005 U	0.005 U
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	0.01 UJ	0.01 U	0.004 J	--	--	0.01 U	0.01 U	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	0.007 U	0.0028 J	0.0019 J	0.0019 J	--	--	0.007 U	0.007 U	0.007 U
Copper	mg/L	0.0287	1 E	0.0972	0.002 U	0.0009 J	0.00043 J	0.0052 U	--	--	0.0032 U	0.0031	0.0032
Iron	mg/L		0.3 E		**0.53**[b]	--	**1.36**[b]	0.124	--	--	0.1 U	--	0.1 U
Iron (Dissolved)	mg/L		0.3 E		0.255	**4.82**[b]	**1.46**[b]	0.1 U	--	--	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.014 X	0.004 L	0.779	0.003 U	0.003 U	0.003 U	0.003 U	--	--	0.003 U	0.003 U	0.003 U
Manganese	mg/L	3.6 X	0.05 E	27.6	**15.9**[ab]	**19.5**[ab]	**8.44**[ab]	**2.83**[b]	--	--	**0.576**[b]	**0.734**[b]	**5.02**[ab]
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	**14.7**[ab]	**18.5**[ab]	**9.02**[ab]	**1.59**[b]	--	--	**0.327**[b]	**0.844**[b]	**4.88**[ab]
Mercury	mg/L	0.0000013	0.002 A	0.0028D	**0.00014 J**[a]	0.0002 U	0.0002 U	0.0002 U	--	--	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	0.0082 J	0.0187 J	0.0087 J	0.02 U	--	--	0.02 U	0.002 J	0.0045 J
Selenium	mg/L	0.005	0.05 A	0.12	0.002 U	0.002 U	0.002 U	**0.0758**[ab]	--	--	**0.231**[abc]	**0.0192**[a]	0.0035
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	--	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	0.001 U	0.001 U	0.001 U	0.000061 J	--	--	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.012	0.0045	0.22	**0.0061**[b]	**0.0228**[ab]	**0.0149**[ab]	0.0036 J	--	--	0.004 U	0.0034 J	**0.0058**[b]
Zinc	mg/L	0.375	2.4	0.745	0.01 U	0.01 U	0.0129 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	0.0001 U	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	0.000054 J	**0.00027**[a]	0.0001 U	--	--	--	--	--	--
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	1180	--	--	80.0	130	--	--	40.0
Aerobic Total Microbial Population	mg/L				--	9640	--	--	130	405	--	--	40.0
Alkalinity, Bicarbonate	mg/L				300 J	450	410	590	--	--	550	560	450
Alkalinity, Carbonate	mg/L				11	5.0 U	5.0 U	5.0 U	--	--	5.8	9.0 U	5.0 U
Alkalinity, Total (as CaCO3)	mg/L				310	450	410	590	--	--	550	570	450
Ammonia	mg/L	CC	10 N		0.7	1.4	3.4	1.3	--	--	1.3	1.8	1.3
Anaerobic TCE Specific Microbial Population	mg/L				--	4000	--	--	15.0	100	--	--	100
Anaerobic Total Microbial Population	mg/L				--	5720	--	--	35.0	45	--	--	7900
Biochemical Oxygen Demand (BOD)	mg/L				11	34 J	2 U	2 U	--	--	2 U	2 U	2 U
Chemical Oxygen Demand (COD)	mg/L				200	280	170	200	--	--	130 J	100	130
Nitrate (as N)	mg/L		10 A,N	NLS	0.10 U	R	0.10 U	1.2	--	--	4.5	0.10	0.10 U
Nitrite (as N)	mg/L		1 A,N		0.10 U	0.10 U	0.10 UJ	0.76	--	--	0.029 J	0.10 U	0.10 U
Phosphorus	mg/L	EE	63		0.1 U	0.07 J	0.05 J	0.1 U	--	--	0.1 U	0.7	0.1 U
Sulfate	mg/L		250 E		8.2	2.4	34.3	**380**[b]	--	--	246 J	173	89.3
Sulfide	mg/L				1.0 UJ	1.0 U	1.0 U	--	--	--	--	--	--
Sulfide (Acid Soluble)	mg/L				--	--	--	1.0 U	--	--	2.0	1.0 U	0.90 J
Total Organic Carbon (TOC)	mg/L				19	33	20	72	--	--	37	27	16
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-44*	*IW-44*	*IW-44*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-061808-DR-002*	*WG-17303-092508-CB-053*	*WG-17303-032609-CB-092*	*WG-17303-030807-DR-007*	*WG-17303-031207-JJ-036*	*WG-17303~060707-DR-029*	*WG-17303-060707-DR-029*	*WG-17303-090507-NRS-002*	*WG-17303-120407-DR-005*
Sample Date:		*Interface*			*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*12/04/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				2.717	2.564	1573	1.704	--	--	1.685	1.76	2.119
Dissolved Oxygen, Field	mg/L				0.1	0.14	19	2.89	--	--	1.42	0.18	0.97
ORP, Field	millivolts				-96	-56	-86	171	--	--	147	-119	-235
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		7.12	6.75	6.78	6.9	--	--	6.8	6.77	6.85
Temperature, Ambient	Deg F				55	75	45	20	--	--	78	78	--
Temperature, Field	Deg C				12.08	15.1	46.91	10.43	--	--	18.02	16.31	10.34
Turbidity (Field)	NTU				9.7	4.42	1.93	4.01	--	--	1.01	0.93	0

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-55*	*IW-55*	*IW-55*	*IW-55*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-006*	*WG-17303~061808-DR-001*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*WG-17303-031507-NRS-038*	*WG-17303-031507-NRS-039*	*WG-17303~060707-EV-030*	*WG-17303-060707-EV-030*
Sample Date:		*Interface*			*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/15/2007*	*03/15/2007*	*06/07/2007*	*06/07/2007*
Sample Type:											*Duplicate*		
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	1 U	--	1.7 U	7.1 UJ	1.2 U	0.033 U	--	--	0.05 U
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,1-Dichloroethane	mg/L	0.74	0.88	13	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	1 U	--	1.7 U	7.1 U	1.2 U	0.011 J[b]	--	--	0.012 J[b]
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	5 U	--	8.3 U	36 U	6.2 U	0.17 U	--	--	0.25 U
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	--	--	--	--	--	0.028 J[a]
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	--	--	--	--	--	0.01 J
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	25 U	--	42 U	180 U	31 U	0.83 U	--	--	1.2 U
2-Hexanone	mg/L		1	ID	50 U	--	83 U	360 U	62 U	1.7 U	--	--	2.5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	50 U	--	83 U	360 U	62 U	1.7 U	--	--	2.5 UJ
Acetone	mg/L	1.7	0.73	30	25 U	--	42 U	180 U	31 U	0.83 U	--	--	1.2 U
Benzene	mg/L	0.012 X	0.005 A	1.8	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Bromoform	mg/L	ID	0.08 A,W	ID	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Carbon disulfide	mg/L	ID	0.8	ID	5 U	--	8.3 U	36 U	6.2 U	0.17 U	--	--	0.25 U
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Chlorobenzene	mg/L	0.047	0.1 A	0.85	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Chloroethane	mg/L	ID	0.43	20	1 UJ	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	32[abc]	--	60[abc]	160[abc]	33[abc]	1.1[ab]	--	--	1.7[ab]
cis-1,3-Dichloropropene	mg/L				1 U	--	1.7 UJ	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Cyclohexane	mg/L			ID	1 U	--	1.7 U	7.1 U	1.2 U	0.006 J	--	--	0.05 U
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Ethylbenzene	mg/L	0.018	0.074 E	0.32	1 U	--	1.7 UJ	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Isopropylbenzene	mg/L	ID	0.8	ID	5 U	--	8.3 U	36 U	6.2 U	0.0057 J	--	--	0.25 U
Methyl acetate	mg/L				10 U	--	17 U	71 U	12 U	0.33 U	--	--	0.5 UJ
Methyl cyclohexane	mg/L				1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	5 U	--	8.3 U	36 U	6.2 U	0.17 U	--	--	0.25 U
Methylene chloride	mg/L	0.047 X	0.005 A	17	5 U	--	8.3 U	36 U	6.2 U	0.011 J[b]	--	--	0.25 U
Styrene	mg/L	0.08	0.1 A	2.9	1 U	--	1.7 UJ	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Toluene	mg/L	0.14	0.79 E	1.7	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	0.39 J[b]	--	0.46 J[b]	7.1 U	0.37 J[b]	0.0076 J	--	--	0.05 U
trans-1,3-Dichloropropene	mg/L				1 U	--	1.7 U	7.1 UJ	1.2 U	0.033 U	--	--	0.05 U
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	15[abc]	--	20[abc]	9.2[abc]	11[abc]	0.79[ab]	--	--	0.38[ab]
Trichlorofluoromethane (CFC-11)	mg/L		2.6		1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	1 U	--	1.7 U	7.1 U	1.2 U	0.033 U	--	--	0.05 U
Vinyl chloride	mg/L	0.015	0.002 A	17	2.3[ab]	--	6.3[ab]	11[ab]	3.1[ab]	0.2[ab]	--	--	0.39[ab]
Xylene (total)	mg/L	0.035	0.28 E	0.63	2 U	--	3.3 UJ	14 U	2.5 U	0.046 J[a]	--	--	0.1 U
Gas													
Ethane	mg/L				0.0005 U	--	0.0005 U	0.00042 J	0.0005 U	0.0005 U	0.0005 U	--	0.00016 J
Ethene	mg/L				0.0033	--	0.0068	0.022	0.0038	0.0017	0.0016	--	0.003

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-55*	*IW-55*	*IW-55*	*IW-55*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-006*	*WG-17303~061808-DR-001*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*WG-17303-031507-NRS-038*	*WG-17303-031507-NRS-039*	*WG-17303~060707-EV-030*	*WG-17303-060707-EV-030*
Sample Date:		*Interface*			*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/15/2007*	*03/15/2007*	*06/07/2007*	*06/07/2007*
Sample Type:											*Duplicate*		
Parameter:	***Units***	***a***	***b***	***c***									
Methane	mg/L	ID	ID		0.0052	--	0.01	0.038	0.011	0.0056	0.0053	--	0.015
Metals													
Aluminum	mg/L		0.05 V		0.0414 J	--	--	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.002 U	--	0.00021 J	0.00022 J	0.00018 J	0.00087 J	--	--	0.00046 J
Arsenic	mg/L	0.05 X	0.01 A	0.68	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	--	--	0.0087
Barium	mg/L	1.866 X	2 A	10.7	0.0025 J	--	0.0024 J	0.1 U	0.0025 J	0.0297 J	--	--	0.0805 J
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	0.0005 U
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.0048 J	--	0.005 U	0.005 U	0.005	0.0022 J	--	--	0.005 U
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	--	0.01 U	0.01 UJ	0.01 U	0.007 J	0.01 U	--	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	0.007 U	--	0.007 U	0.007 U	0.007 U	0.007 U	--	--	0.007 U
Copper	mg/L	0.0287	1 E	0.0972	0.00061 J	--	0.002 U	0.0035	0.0013 J	0.0067	--	--	0.005 U
Iron	mg/L		0.3 E		0.1 U	--	0.1 U	--	0.1 U	0.126	--	--	3.21 J[b]
Iron (Dissolved)	mg/L		0.3 E		0.1 U	--	0.1 U	0.1 U	0.1 U	0.12	0.107	--	3[b]
Lead	mg/L	0.014 X	0.004 L	0.779	0.003 U	--	0.003 U	0.003 U	0.003 U	0.0028 J	--	--	0.0025 J
Manganese	mg/L	3.6 X	0.05 E	27.6	0.952[b]	--	0.509[b]	7.35[ab]	0.12[b]	15.6[ab]	--	--	13.3[ab]
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	0.247[b]	--	0.0516[b]	9.06[ab]	0.233[b]	14.4[ab]	14[ab]	--	14.1[ab]
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	--	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	0.02 U	--	0.02 U	0.0094 J	0.02 U	0.0081 J	--	--	0.0061 J
Selenium	mg/L	0.005	0.05 A	0.12	0.0299[a]	--	0.0341[a]	0.0058[a]	0.0276[a]	0.002 U	--	--	0.002 U
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	--	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	0.001 U	--	0.001 U	0.00023 J	0.001 U	0.000027 J	--	--	0.001 U
Vanadium	mg/L	0.012	0.0045	0.22	0.0013 J	--	0.0016 J	0.0037 J	0.004 U	0.0064[b]	--	--	0.006[b]
Zinc	mg/L	0.375	2.4	0.745	0.0028 J	--	0.01 U	0.01 U	0.01 U	0.0276 U	--	--	0.01 U
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	0.0001 U	--	--	--	--
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	10	--	2440	--	415	--	9240	--
Aerobic Total Microbial Population	mg/L				--	15	--	1380	--	54500	--	9680	--
Alkalinity, Bicarbonate	mg/L				480	--	430	290	480	380	380	--	500
Alkalinity, Carbonate	mg/L				5.0 U	--	43	5.0 U	5.0 U	5.0 U	5.0 U	--	5.6
Alkalinity, Total (as CaCO3)	mg/L				490	--	470	290	480	380	380	--	500
Ammonia	mg/L	CC	10 N		0.8	--	1.3	1.5	1.3	0.4 J	0.1 J	--	0.5
Anaerobic TCE Specific Microbial Population	mg/L				--	45	--	3520	--	15.0	--	8360	--
Anaerobic Total Microbial Population	mg/L				--	2240	--	525	--	33400	--	10900	--
Biochemical Oxygen Demand (BOD)	mg/L				2 U	--	2 U	2 U	2 U	11	9	--	2 U
Chemical Oxygen Demand (COD)	mg/L				68 J	--	98	200	58	110	100	--	96 J
Nitrate (as N)	mg/L		10 A,N	NLS	0.90	--	0.40	R	0.30	0.060 J	0.040 J	--	0.034 J
Nitrite (as N)	mg/L		1 A,N		0.10 U	--	0.10 U	0.10 U	0.10 UJ	0.66 J	1.2 J[b]	--	0.10 U
Phosphorus	mg/L	EE	63		0.1 U	--	0.1 U	0.03 J	0.1	0.1	0.1	--	0.2
Sulfate	mg/L		250 E		122 J	--	97.8	30.3	114	129	126	--	158 J
Sulfide	mg/L				--	--	1.0 UJ	1.0 U	0.82 J	--	--	--	--
Sulfide (Acid Soluble)	mg/L				3.6 U	--	--	--	--	1.0 U	1.0 U	--	1.0 U
Total Organic Carbon (TOC)	mg/L				20 J	--	17	24	17	27	28	--	22
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-45*	*IW-55*	*IW-55*	*IW-55*	*IW-55*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-006*	*WG-17303~061808-DR-001*	*WG-17303-061808-DR-001*	*WG-17303-092508-CB-054*	*WG-17303-032609-CB-089*	*WG-17303-031507-NRS-038*	*WG-17303-031507-NRS-039*	*WG-17303~060707-EV-030*	*WG-17303-060707-EV-030*
Sample Date:		*Interface*			*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/15/2007*	*03/15/2007*	*06/07/2007*	*06/07/2007*
Sample Type:											*Duplicate*		
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				1.345	--	1.472	1.759	969.3	1.666	1.666	--	2.141
Dissolved Oxygen, Field	mg/L				2.59	--	1.01	2.9	4876	0.88	0.88	--	0.22
ORP, Field	millivolts				120	--	41	244	220	-65	-65	--	-148
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.99	--	6.89	6.74	6.92	7.1	7.1	--	7.01
Temperature, Ambient	Deg F				35	--	55	75	45	35	35	--	78
Temperature, Field	Deg C				7.48	--	12.18	15.13	45.24	9.73	9.73	--	19.67
Turbidity (Field)	NTU				4.67	--	3.88	1.6	0.95	7.27	7.27	--	4.33

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*	*WG-17303-032508-CB-005*	*WG-17303~061808-DR-006*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*WG-17303-030807-DR-013*	*WG-17303-031207-JJ-037*
Sample Date:		*Interface*			*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 UJ	0.067 U	2.5 U	--
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,1-Dichloroethane	mg/L	0.74	0.88	13	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	0.2 U	0.091 U	0.091 U	--	0.17 U	0.12 U	0.33 U	12 U	--
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	0.039 J[a]	0.03[a]	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	0.013 J	0.011 J	--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	1 U	0.45 U	0.45 U	--	0.83 U	0.62 U	1.7 U	62 U	--
2-Hexanone	mg/L		1	ID	2 U	0.91 U	0.91 U	--	1.7 U	1.2 U	3.3 U	120 U	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	2 U	0.91 U	0.91 U	--	1.7 U	1.2 U	3.3 U	120 U	--
Acetone	mg/L	1.7	0.73	30	1 U	0.45 U	0.053 J	--	0.83 U	0.62 U	1.7 U	62 U	--
Benzene	mg/L	0.012 X	0.005 A	1.8	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Bromoform	mg/L	ID	0.08 A,W	ID	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Carbon disulfide	mg/L	ID	0.8	ID	0.2 U	0.091 U	0.091 U	--	0.17 U	0.12 U	0.33 U	12 U	--
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Chlorobenzene	mg/L	0.047	0.1 A	0.85	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Chloroethane	mg/L	ID	0.43	20	0.04 U	0.018 U	0.018 UJ	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	1.1[ab]	0.52[b]	0.19[b]	--	0.8[ab]	0.42[b]	2.4[ab]	84[abc]	--
cis-1,3-Dichloropropene	mg/L				0.04 U	0.018 U	0.018 U	--	0.033 UJ	0.025 U	0.067 U	2.5 U	--
Cyclohexane	mg/L			ID	0.04 U	0.0031 J	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Ethylbenzene	mg/L	0.018	0.074 E	0.32	0.04 U	0.018 U	0.018 U	--	0.033 UJ	0.025 U	0.067 U	2.5 U	--
Isopropylbenzene	mg/L	ID	0.8	ID	0.2 U	0.0037 J	0.091 U	--	0.17 U	0.12 U	0.33 U	12 U	--
Methyl acetate	mg/L				0.4 U	0.18 U	0.18 U	--	0.33 U	0.25 U	0.67 U	25 U	--
Methyl cyclohexane	mg/L				0.04 U	0.0098 J	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	0.2 U	0.091 U	0.091 U	--	0.17 U	0.12 U	0.33 U	12 U	--
Methylene chloride	mg/L	0.047 X	0.005 A	17	0.2 U	0.0083 J[b]	0.0081 J[b]	--	0.17 U	0.12 U	0.33 U	12 U	--
Styrene	mg/L	0.08	0.1 A	2.9	0.04 U	0.018 U	0.018 U	--	0.033 UJ	0.025 U	0.067 U	2.5 U	--
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Toluene	mg/L	0.14	0.79 E	1.7	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	0.04 U	0.0049 J	0.018 U	--	0.017 J	0.0089 J	0.063 J	0.69 J[b]	--
trans-1,3-Dichloropropene	mg/L				0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 UJ	0.067 U	2.5 U	--
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	0.51[ab]	0.24[ab]	0.53[ab]	--	0.14[ab]	0.25[ab]	0.23[ab]	5.4[abc]	--
Trichlorofluoromethane (CFC-11)	mg/L		2.6		0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	0.04 U	0.018 U	0.018 U	--	0.033 U	0.025 U	0.067 U	2.5 U	--
Vinyl chloride	mg/L	0.015	0.002 A	17	0.43[ab]	0.27[ab]	0.014 J[b]	--	0.54[ab]	0.81[ab]	0.6[ab]	12[ab]	--
Xylene (total)	mg/L	0.035	0.28 E	0.63	0.019 J	0.0096 J	0.036 U	--	0.067 UJ	0.05 U	0.13 U	5 U	--
Gas													
Ethane	mg/L				0.0005 U	0.0003 J	0.0005 U	--	0.00037 J	0.00061	0.0009	0.00047 J	--
Ethene	mg/L				0.004	0.0057	0.0005 U	--	0.002	0.0057	0.0031	0.059	--

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*	*WG-17303-032508-CB-005*	*WG-17303~061808-DR-006*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*WG-17303-030807-DR-013*	*WG-17303-031207-JJ-037*
Sample Date:		*Interface*			*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.02	0.029	0.0019	--	0.019	0.035	0.024	0.033	--
Metals													
Aluminum	mg/L		0.05 V		--	--	**0.111**[b]	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.002 U	0.002 U	0.00019 J	--	0.002 U	0.002 U	0.00023 J	0.00052 J	--
Arsenic	mg/L	0.05 X	0.01 A	0.68	**0.0135**[b]	**0.0107**[b]	0.0097	--	**0.0115**[b]	**0.0101**[b]	0.008	0.0044 J	--
Barium	mg/L	1.866 X	2 A	10.7	0.147	0.0888 J	0.0969 J	--	0.15	0.0906 J	0.127	0.173	--
Beryllium	mg/L	0.0753	0.004 A	1.35	0.00031 J	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	--
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.00017 J	--
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.005 U	0.005 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	--
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--
Cobalt	mg/L	0.1	0.04	0.74	0.002 J	0.007 U	0.007 U	--	0.007 U	0.007 U	0.007 U	0.0095	--
Copper	mg/L	0.0287	1 E	0.0972	0.0054	0.0024 U	0.003	--	0.002 U	0.0015 J	0.00084 J	0.0029 U	--
Iron	mg/L		0.3 E		--	**3.99**[b]	**2.38**[b]	--	**4.1**[b]	--	**0.432**[b]	**5.48**[b]	--
Iron (Dissolved)	mg/L		0.3 E		**4.91**[b]	**3.89**[b]	**2.43**[b]	--	**3.31**[b]	**2.31**[b]	**0.338**[b]	**5.03**[b]	--
Lead	mg/L	0.014 X	0.004 L	0.779	0.0021 J	0.003 U	**0.0048**[b]	--	0.003 U	0.003 U	0.003 U	0.003 U	--
Manganese	mg/L	3.6 X	0.05 E	27.6	**10.6**[ab]	**6.57**[ab]	**4.73**[ab]	--	**7.03**[ab]	**5.98**[ab]	**3.75**[ab]	**2.17**[b]	--
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	**9.42**[ab]	**6.08**[ab]	**5.19**[ab]	--	**6.47**[ab]	**5.93**[ab]	**3.62**[ab]	**2.2**[b]	--
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--
Nickel	mg/L	0.165	0.1 A	2.97	0.0072 J	0.0043 J	0.0036 J	--	0.02 U	0.02 U	0.02 U	0.02 U	--
Selenium	mg/L	0.005	0.05 A	0.12	0.00067 J	0.002 U	0.002 U	--	0.002 U	0.002 U	0.002 U	0.00078 J	--
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--
Thallium	mg/L	0.002 X	0.002 A	0.094	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.0002 J	--
Vanadium	mg/L	0.012	0.0045	0.22	**0.0051**[b]	0.0025 J	**0.0049**[b]	--	**0.0069**[b]	**0.0051**[b]	**0.0185**[ab]	0.004 U	--
Zinc	mg/L	0.375	2.4	0.745	0.0134 U	0.01 U	0.0138	--	0.01 U	0.01 U	0.01 U	0.0143 U	--
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.0001 U	0.0001 U	--
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	--	--	--	--	--	--	0.000074 J	0.0001 U	--
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	40.0	--	85	--	4880	--	--	55.0
Aerobic Total Microbial Population	mg/L				--	1790	--	660	--	535	--	--	95.0
Alkalinity, Bicarbonate	mg/L				510	500	130	--	530	570	590	540	--
Alkalinity, Carbonate	mg/L				5.0 U	5.0 U	5.0 U	--	45 J	5.0 U	5.0 U	5.0 U	--
Alkalinity, Total (as CaCO3)	mg/L				510	500	130	--	580	570	590	540	--
Ammonia	mg/L	CC	10 N		0.4 U	0.2 U	0.3	--	0.8	0.4	0.9	2.1	--
Anaerobic TCE Specific Microbial Population	mg/L				--	80.0	--	130	--	3480	--	--	0 U
Anaerobic Total Microbial Population	mg/L				--	11700	--	23000	--	420	--	--	115
Biochemical Oxygen Demand (BOD)	mg/L				2 U	2 U	7	--	4	2 U	5 J	2 U	--
Chemical Oxygen Demand (COD)	mg/L				56	33	22 J	--	42	43	22	140	--
Nitrate (as N)	mg/L		10 A,N	NLS	0.10 U	0.10 U	0.10 U	--	0.10 U	0.20 J	1.5	0.10 U	--
Nitrite (as N)	mg/L		1 A,N		0.10 U	0.10 U	0.10 U	--	0.10 U	0.10 U	0.10 UJ	0.75	--
Phosphorus	mg/L	EE	63		0.2	0.1	0.1 U	--	0.3	0.3	0.2	0.1 U	--
Sulfate	mg/L		250 E		174	190	23.8 J	--	144	170	174	166	--
Sulfide	mg/L				--	--	--	--	0.96 J	1.0 U	3.7 J	--	--
Sulfide (Acid Soluble)	mg/L				2.0	1.0 U	1.0 U	--	--	--	--	1.3	--
Total Organic Carbon (TOC)	mg/L				14	9	11 J	--	10	9	5	24	--
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*IW-55*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-090507-DR-003*	*WG-17303-120407-DR-004*	*WG-17303-032508-CB-005*	*WG-17303~061808-DR-006*	*WG-17303-061808-DR-006*	*WG-17303-092508-DR-058*	*WG-17303-032609-CB-095*	*WG-17303-030807-DR-013*	*WG-17303-031207-JJ-037*
Sample Date:		*Interface*			*09/05/2007*	*12/04/2007*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*03/26/2009*	*03/08/2007*	*03/12/2007*
Sample Type:													
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				2.27	2.553	0.36	--	2.11	2.310	1516	1.814	--
Dissolved Oxygen, Field	mg/L				0.14	0.24	0.26	--	0.09	2.48	42	1.73	--
ORP, Field	millivolts				-134	-89	-117	--	-132	-247	-162	-6	--
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.97	6.98	6.95	--	7.1	6.94	7.27	6.84	--
Temperature, Ambient	Deg F				78	--	35	--	60	75	45	20	--
Temperature, Field	Deg C				20.76	13.94	9.49	--	15.78	20.90	54.19	8.36	--
Turbidity (Field)	NTU				2.92	2.34	8.37	--	6.12	0.58	4.95	4.71	--

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~060707-DR-027*	*WG-17303~060707-DR-028*	*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*	*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-120507-DR-010*
Sample Date:		*Interface*			*06/07/2007*	*06/07/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*	*12/05/2007*	*12/05/2007*	*12/05/2007*
Sample Type:						*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	--	--	3.3 UJ	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,1-Dichloroethane	mg/L	0.74	0.88	13	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	--	--	17 U	17 U	17 U	17 U	25 U	25 U	--
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	--	--	83 U	83 U	83 U	83 U	120 U	120 U	--
2-Hexanone	mg/L		1	ID	--	--	170 U	170 U	170 U	170 U	250 U	250 U	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	--	--	170 UJ	170 UJ	170 U	170 U	250 U	250 U	--
Acetone	mg/L	1.7	0.73	30	--	--	83 U	83 U	83 U	83 U	120 U	120 U	--
Benzene	mg/L	0.012 X	0.005 A	1.8	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Bromoform	mg/L	ID	0.08 A,W	ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Carbon disulfide	mg/L	ID	0.8	ID	--	--	17 U	17 U	17 U	17 U	25 U	25 U	--
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Chlorobenzene	mg/L	0.047	0.1 A	0.85	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Chloroethane	mg/L	ID	0.43	20	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	--	--	**110[abc]**	**110[abc]**	**110[abc]**	**110[abc]**	**110[abc]**	**110[abc]**	--
cis-1,3-Dichloropropene	mg/L				--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Cyclohexane	mg/L			ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Ethylbenzene	mg/L	0.018	0.074 E	0.32	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Isopropylbenzene	mg/L	ID	0.8	ID	--	--	17 U	17 U	17 U	17 U	25 U	25 U	--
Methyl acetate	mg/L				--	--	33 UJ	33 UJ	33 U	33 U	50 U	50 U	--
Methyl cyclohexane	mg/L				--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	--	--	17 U	17 U	17 U	17 U	25 U	25 U	--
Methylene chloride	mg/L	0.047 X	0.005 A	17	--	--	17 U	17 U	17 U	17 U	25 U	25 U	--
Styrene	mg/L	0.08	0.1 A	2.9	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Toluene	mg/L	0.14	0.79 E	1.7	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	--	--	**0.85 J[b]**	**0.65 J[b]**	**0.94 J[b]**	**1 J[b]**	5 U	**1.1 J[b]**	--
trans-1,3-Dichloropropene	mg/L				--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	--	--	**4.9[abc]**	**4.8[abc]**	**5.3[abc]**	**5.5[abc]**	**3.9 J[abc]**	**2.9 J[ab]**	--
Trichlorofluoromethane (CFC-11)	mg/L		2.6		--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	--	--	3.3 U	3.3 U	3.3 U	3.3 U	5 U	5 U	--
Vinyl chloride	mg/L	0.015	0.002 A	17	--	--	**16[ab]**	**15[ab]**	**15[ab]**	**15[ab]**	**14[ab]**	**17[ab]**	--
Xylene (total)	mg/L	0.035	0.28 E	0.63	--	--	6.7 U	6.7 U	6.7 U	6.7 U	10 U	10 U	--
Gas													
Ethane	mg/L				--	--	0.00049 J	0.00041 J	0.00094	0.00097	0.00091	--	0.00094
Ethene	mg/L				--	--	0.045	0.046	0.17	0.18	0.22	--	0.25

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~060707-DR-027*	*WG-17303~060707-DR-028*	*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*	*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-120507-DR-010*
Sample Date:		*Interface*			*06/07/2007*	*06/07/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*	*12/05/2007*	*12/05/2007*	*12/05/2007*
Sample Type:						*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		--	--	0.031	0.032	0.13	0.14	0.15	--	0.16
Metals													
Aluminum	mg/L		0.05 V		--	--	--	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	--	--	0.0003 J	0.00023 J	0.002 U	0.002 U	0.00063 J	--	0.00034 J
Arsenic	mg/L	0.05 X	0.01 A	0.68	--	--	0.0059	0.0053	0.005 U	0.005 U	0.0057	--	0.0044 J
Barium	mg/L	1.866 X	2 A	10.7	--	--	0.153	0.149	0.171	0.166	0.252	--	0.262
Beryllium	mg/L	0.0753	0.004 A	1.35	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	--	--	0.0005 U	0.00011 J	0.0005 U	0.0005 U	0.00014 J	--	0.00013 J
Chromium Total	mg/L	0.011	0.1 A	0.032D	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	0.005 U
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	--	--	0.0063 J	0.006 J	0.0081	0.0077	0.009	--	0.0097
Copper	mg/L	0.0287	1 E	0.0972	--	--	0.0025 U	0.0023 U	0.0022 U	0.0022 U	0.0023	--	0.0022
Iron	mg/L		0.3 E		--	--	**4.49 J[b]**	**4.39 J[b]**	--	--	**4.52[b]**	--	**4.72[b]**
Iron (Dissolved)	mg/L		0.3 E		--	--	**3.65[b]**	**3.84[b]**	**4.06[b]**	**4.78[b]**	**4.21[b]**	--	**4.36[b]**
Lead	mg/L	0.014 X	0.004 L	0.779	--	--	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	--	0.003 U
Manganese	mg/L	3.6 X	0.05 E	27.6	--	--	**1.72[b]**	**1.7[b]**	**2.15[b]**	**2.06[b]**	**2.28[b]**	--	**2.4[b]**
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	--	--	**1.52[b]**	**1.59[b]**	**2[b]**	**2[b]**	**2.37[b]**	--	**2.34[b]**
Mercury	mg/L	0.0000013	0.002 A	0.0028D	--	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	--	--	0.0049 J	0.0048 J	0.0072 J	0.0063 J	0.0048 J	--	0.0059 J
Selenium	mg/L	0.005	0.05 A	0.12	--	--	0.002 U	0.0022 U	0.002 U	0.002 U	0.0016 J	--	0.002 U
Silver	mg/L	0.0002 M	0.034	0.0011	--	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	--	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	--	--	0.000073 J	0.000064 J	0.001 U	0.001 U	0.00019 J	--	0.00018 J
Vanadium	mg/L	0.012	0.0045	0.22	--	--	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	--	0.004 U
Zinc	mg/L	0.375	2.4	0.745	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.012	--	0.0113
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	--	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				15	20	--	--	--	--	NG	--	--
Aerobic Total Microbial Population	mg/L				55	45	--	--	--	--	15.0	--	--
Alkalinity, Bicarbonate	mg/L				--	--	430	430	520	530	500 J	--	230 J
Alkalinity, Carbonate	mg/L				--	--	7.3	5.2	9.0 U	5.0 U	5.0 UJ	--	730 J
Alkalinity, Total (as CaCO3)	mg/L				--	--	440	440	530	530	500 J	--	960 J
Ammonia	mg/L	CC	10 N		--	--	1.1	1.2	2.3	2.0	1.7	--	1.6
Anaerobic TCE Specific Microbial Population	mg/L				25	25	--	--	--	--	NG	--	--
Anaerobic Total Microbial Population	mg/L				NG	25	--	--	--	--	10.0	--	--
Biochemical Oxygen Demand (BOD)	mg/L				--	--	2 U	2 U	2 U	2 U	2 U	--	2 U
Chemical Oxygen Demand (COD)	mg/L				--	--	170 J	150 J	120	120	160	--	140
Nitrate (as N)	mg/L		10 A,N	NLS	--	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
Nitrite (as N)	mg/L		1 A,N		--	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	0.10 U
Phosphorus	mg/L	EE	63		--	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	--	0.1 U
Sulfate	mg/L		250 E		--	--	159 J	163 J	130	130	98.1	--	97.8
Sulfide	mg/L				--	--	--	--	--	--	--	--	--
Sulfide (Acid Soluble)	mg/L				--	--	1.0 U	1.0 U	0.70 J	1.3	2.0 U	--	2.0 U
Total Organic Carbon (TOC)	mg/L				--	--	28	28	20	20	--	--	--
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303~060707-DR-027*	*WG-17303~060707-DR-028*	*WG-17303-060707-DR-027*	*WG-17303-060707-DR-028*	*WG-17303-090507-NRS-004*	*WG-17303-090507-NRS-006*	*WG-17303-120507-DR-009*	*WG-17303-120507-DR-010*	*WG-17303-120507-DR-010*
Sample Date:		*Interface*			*06/07/2007*	*06/07/2007*	*06/07/2007*	*06/07/2007*	*09/05/2007*	*09/05/2007*	*12/05/2007*	*12/05/2007*	*12/05/2007*
Sample Type:						*Duplicate*		*Duplicate*		*Duplicate*		*Duplicate*	
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				--	--	2.125	2.125	--	2.265	1.897	--	1.897
Dissolved Oxygen, Field	mg/L				--	--	0.05	0.05	--	0	0.33	--	0.33
ORP, Field	millivolts				--	--	-12	0.12	--	-198	-259	--	-259
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		--	--	6.75	6.75	--	6.8	6.76	--	6.76
Temperature, Ambient	Deg F				--	--	78	78	--	78	--	--	--
Temperature, Field	Deg C				--	--	18.56	18.56	--	17.34	9.32	--	9.32
Turbidity (Field)	NTU				--	--	4.51	4.51	--	4.42	3.3	--	3.3

Notes:

The analytical data is compare The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).
The foot notes for Part 201 crit The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualifi The associated value is qualified as an estimated quantity.
UJ The analyte was reported or q The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.
R The data is qualified as unusa The data is qualified as unusable. (Note: Analyte may or may not be present).

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303~061808-DR-003*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*	*WG-17303-032609-CB-091*
Sample Date:		*Interface*			*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*
Sample Type:						*Duplicate*			*Duplicate*		*Duplicate*		*Duplicate*
Parameter:	*Units*	*a*	*b*	*c*									
VOCs													
1,1,1-Trichloroethane	mg/L	0.2	0.2 A	1.6	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,1,2,2-Tetrachloroethane	mg/L	0.0032 X	0.0085	1.8	2.5 U	2.5 U	--	5 U	5 U	3.3 UJ	3.3 UJ	1.7 U	1.7 U
1,1,2-Trichloroethane	mg/L	0.012 X	0.005 A	5.6	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,1-Dichloroethane	mg/L	0.74	0.88	13	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,1-Dichloroethene	mg/L	0.024 X	0.007 A	2.3	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 A	0.2	12 U	12 U	--	25 U	25 U	17 U	17 U	8.3 U	8.3 U
1,2,4-Trimethylbenzene	mg/L	0.017	0.063 E	0.31	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L		0.0002 A		2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005 X	0.00005 A	0.28	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,2-Dichlorobenzene	mg/L	0.016	0.6 A	0.28	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,2-Dichloroethane	mg/L	0.006 X	0.005 A	15	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,2-Dichloropropane	mg/L	0.0091 X	0.005 A	4.0	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,3,5-Trimethylbenzene	mg/L	0.045	0.072 E	0.81	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/L	0.038	0.0066	0.2	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
1,4-Dichlorobenzene	mg/L	0.013	0.075 A	0.2	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	2.2	13	40	62 U	62 U	--	120 U	120 U	83 U	83 U	42 U	42 U
2-Hexanone	mg/L		1	ID	120 U	120 U	--	250 U	250 U	170 U	170 U	83 U	83 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ID	1.8	ID	120 U	120 U	--	250 U	250 U	170 U	170 U	83 U	83 U
Acetone	mg/L	1.7	0.73	30	62 U	62 U	--	120 U	120 U	83 U	83 U	42 U	42 U
Benzene	mg/L	0.012 X	0.005 A	1.8	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Bromodichloromethane	mg/L	ID	0.08 A,W	ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Bromoform	mg/L	ID	0.08 A,W	ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Bromomethane (Methyl Bromide)	mg/L	0.035	0.01	0.64	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Carbon disulfide	mg/L	ID	0.8	ID	12 U	12 U	--	25 U	25 U	17 U	17 U	8.3 U	8.3 U
Carbon tetrachloride	mg/L	0.0056 X	0.005 A	1.6	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Chlorobenzene	mg/L	0.047	0.1 A	0.85	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Chloroethane	mg/L	ID	0.43	20	2.5 UJ	2.5 UJ	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Chloroform (Trichloromethane)	mg/L	0.077 X	0.08 A,W	2.6	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Chloromethane (Methyl Chloride)	mg/L	ID	0.26	ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
cis-1,2-Dichloroethene	mg/L	0.62	0.07 A	11	89[abc]	98[abc]	--	140[abc]	140[abc]	82[abc]	80[abc]	54[abc]	53[abc]
cis-1,3-Dichloropropene	mg/L				2.5 U	2.5 U	--	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U	1.7 U
Cyclohexane	mg/L			ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Dibromochloromethane	mg/L	ID	0.08 A,W	ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Dichlorodifluoromethane (CFC-12)	mg/L	ID	1.7	ID	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Ethylbenzene	mg/L	0.018	0.074 E	0.32	2.5 U	2.5 U	--	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U	1.7 U
Isopropylbenzene	mg/L	ID	0.8	ID	12 U	12 U	--	25 U	25 U	17 U	17 U	8.3 U	8.3 U
Methyl acetate	mg/L				25 U	25 U	--	50 U	50 U	33 U	33 U	17 U	17 U
Methyl cyclohexane	mg/L				2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Methyl Tert Butyl Ether	mg/L	0.1 X	0.04 E	13	12 U	12 U	--	25 U	25 U	17 U	17 U	8.3 U	8.3 U
Methylene chloride	mg/L	0.047 X	0.005 A	17	12 U	12 U	--	25 U	25 U	17 U	17 U	8.3 U	8.3 U
Styrene	mg/L	0.08	0.1 A	2.9	2.5 U	2.5 U	--	5 UJ	5 UJ	3.3 U	3.3 U	1.7 U	1.7 U
Tetrachloroethene	mg/L	0.011 X	0.005 A	0.71	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Toluene	mg/L	0.14	0.79 E	1.7	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
trans-1,2-Dichloroethene	mg/L	1.5	0.1 A	28	0.67 J[b]	0.81 J[b]	--	5 U	0.95 J[b]	0.82 J[b]	3.3 U	0.47 J[b]	0.52 J[b]
trans-1,3-Dichloropropene	mg/L				2.5 U	2.5 U	--	5 U	5 U	3.3 UJ	3.3 UJ	1.7 U	1.7 U
Trichloroethene	mg/L	0.029 X	0.005 A	3.5	3.6[abc]	3.8[abc]	--	5.5[abc]	5.2[abc]	3.2 J[ab]	3.2 J[ab]	6.4[abc]	5.8[abc]
Trichlorofluoromethane (CFC-11)	mg/L		2.6		2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.032	170 S	0.57	2.5 U	2.5 U	--	5 U	5 U	3.3 U	3.3 U	1.7 U	1.7 U
Vinyl chloride	mg/L	0.015	0.002 A	17	24[abc]	28[abc]	--	20[abc]	20[abc]	14[ab]	14[ab]	16[ab]	15[ab]
Xylene (total)	mg/L	0.035	0.28 E	0.63	5 U	5 U	--	10 UJ	10 UJ	6.7 U	6.7 U	3.3 U	3.3 U
Gas													
Ethane	mg/L				0.0015	0.0018	--	0.0017 J	0.0007 J	0.0011	0.0012	0.001	0.0011
Ethene	mg/L				0.14	0.17	--	0.11 J	0.052 J	0.11	0.11	0.26	0.24

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303~061808-DR-003*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*	*WG-17303-032609-CB-091*
Sample Date:		*Interface*			*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*
Sample Type:						*Duplicate*			*Duplicate*		*Duplicate*		*Duplicate*
Parameter:	*Units*	*a*	*b*	*c*									
Methane	mg/L	ID	ID		0.083	0.094	--	0.24 J	0.11 J	0.13	0.13	0.32	0.29
Metals													
Aluminum	mg/L		0.05 V		0.05 U	0.0206 J	--	--	--	--	--	--	--
Antimony	mg/L	0.002 X	0.006 A	2.3	0.00016 J	0.00014 J	--	0.00035 J	0.00027 J	0.00018 J	0.002 U	0.00017 J	0.0002 J
Arsenic	mg/L	0.05 X	0.01 A	0.68	**0.0103**[b]	0.0086	--	**0.0109**[b]	**0.0139**[b]	**0.0266**[b]	**0.0238**[b]	**0.0186**[b]	**0.0164**[b]
Barium	mg/L	1.866 X	2 A	10.7	0.249	0.246	--	0.197	0.195	0.233	0.217	0.218	0.218
Beryllium	mg/L	0.0753	0.004 A	1.35	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0025 X	0.005 A	0.0373	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chromium Total	mg/L	0.011	0.1 A	0.032D	0.005 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium VI (Hexavalent)	mg/L	0.011	0.1 A	0.032D	0.01 U	0.01 U	--	0.01 U	0.004 J	0.01 UJ	0.002 J	0.01 U	0.01 U
Cobalt	mg/L	0.1	0.04	0.74	0.0083	0.0065 J	--	0.0051 J	0.0052 J	0.0069 J	0.007	0.0082	0.0076
Copper	mg/L	0.0287	1 E	0.0972	0.00053 J	0.00066 J	--	0.0022	0.0024	0.001 J	0.0011 J	0.0016 J	0.0013 J
Iron	mg/L		0.3 E		**6.14**[b]	**6.08**[b]	--	**10.2**[b]	**10.1**[b]	--	--	**10.4**[b]	**10.3**[b]
Iron (Dissolved)	mg/L		0.3 E		**5.85**[b]	**5.96**[b]	--	**9.42**[b]	**9.86**[b]	**13.3**[b]	**13.2**[b]	**10**[b]	**10**[b]
Lead	mg/L	0.014 X	0.004 L	0.779	0.003 U	0.003 U	--	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Manganese	mg/L	3.6 X	0.05 E	27.6	**1.59**[b]	**1.57**[b]	--	**1.62**[b]	**1.59**[b]	**1.18**[b]	**1.24**[b]	**1.28**[b]	**1.24**[b]
Manganese (Dissolved)	mg/L	3.6 X	0.05 E	27.6	**1.64**[b]	**1.69**[b]	--	**1.58**[b]	**1.61**[b]	**1.11**[b]	**1.09**[b]	**1.23**[b]	**1.29**[b]
Mercury	mg/L	0.0000013	0.002 A	0.0028D	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.165	0.1 A	2.97	0.0059 J	0.0049 J	--	0.0053 J	0.0061 J	0.0072 J	0.008 J	0.0077 J	0.0073 J
Selenium	mg/L	0.005	0.05 A	0.12	0.002 U	0.002 U	--	0.002 U	0.002 U	0.002 U	0.002 U	**0.0099**[a]	**0.0101**[a]
Silver	mg/L	0.0002 M	0.034	0.0011	0.0002 U	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.002 X	0.002 A	0.094	0.001 U	0.001 U	--	0.0002 J	0.001 U	0.00016 J	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	0.012	0.0045	0.22	0.004 U	0.004 U	--	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	mg/L	0.375	2.4	0.745	0.0041 J	0.0045 J	--	0.01 U	0.01 U	0.01 U	0.01 U	0.0106 U	0.01 U
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1248 (PCB-1248)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0002 M	0.0005 A	ID	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
General Chemistry													
Aerobic DCE/VC Specific Microbial Population	mg/L				--	--	15	--	--	180	--	--	--
Aerobic Total Microbial Population	mg/L				--	--	NG	--	--	15	--	--	--
Alkalinity, Bicarbonate	mg/L				490	480	--	510	510	530	540	480	490
Alkalinity, Carbonate	mg/L				7.0	8.3	--	3.4 J	2.5 J	5.0 U	5.0 U	5.0 U	5.0 U
Alkalinity, Total (as CaCO3)	mg/L				500	500	--	520	510	530	540	480	490
Ammonia	mg/L	CC	10 N		1.5	1.4	--	2.6	2.6	1.5	1.8	1.5	1.5
Anaerobic TCE Specific Microbial Population	mg/L				--	--	35	--	--	100	--	--	--
Anaerobic Total Microbial Population	mg/L				--	--	215	--	--	20	--	--	--
Biochemical Oxygen Demand (BOD)	mg/L				2 U	3	--	14	16	2 U	2 U	2 U	2 U
Chemical Oxygen Demand (COD)	mg/L				130 J	100 J	--	200	210	130	110	94	92
Nitrate (as N)	mg/L		10 A,N	NLS	0.10 U	0.10 U	--	0.10 U	0.10 U	R	R	0.40	0.30
Nitrite (as N)	mg/L		1 A,N		0.10 U	0.10 U	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
Phosphorus	mg/L	EE	63		0.1 U	0.1 U	--	0.1 U	0.1 U	0.05 J	0.03 J	0.06 J	0.1
Sulfate	mg/L		250 E		89.3 J	94.2 J	--	72.1	72.6	120	120	124	111
Sulfide	mg/L				--	--	--	0.64 J	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Sulfide (Acid Soluble)	mg/L				2.3 U	1.0 U	--	--	--	--	--	--	--
Total Organic Carbon (TOC)	mg/L				21 J	21 J	--	33	34	18	18	23	22
Field Parameters													

TABLE H.7.1

GROUNDWATER ANALYTICAL RESULTS - NATURAL ATTENUATION MONITORING
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Sample Location:		*Groundwater*	*Residential*	*Final*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*	*MW-18-45*
Sample ID:		*Surface Water*	*Drinking Water*	*Acute Value*	*WG-17303-032508-DR-007*	*WG-17303-032508-DR-008*	*WG-17303~061808-DR-003*	*WG-17303-061808-DR-003*	*WG-17303-061808-DR-004*	*WG-17303-092508-CB-055*	*WG-17303-092508-CB-056*	*WG-17303-032609-CB-090*	*WG-17303-032609-CB-091*
Sample Date:		*Interface*			*03/25/2008*	*03/25/2008*	*06/18/2008*	*06/18/2008*	*06/18/2008*	*09/25/2008*	*09/25/2008*	*03/26/2009*	*03/26/2009*
Sample Type:						*Duplicate*			*Duplicate*		*Duplicate*		*Duplicate*
Parameter:	*Units*	*a*	*b*	*c*									
Conductivity Field	mS/cm				2.35	2.35	--	2.28	2.28	2.178	2.178	1304	1304
Dissolved Oxygen, Field	mg/L				0.51	0.51	--	0.08	0.08	0.19	0.19	198	198
ORP, Field	millivolts				-32	-32	--	-78	-78	-87	-87	16	16
pH Field	s.u.	6.5 - 9.0	6.5 - 8.5 E		6.95	6.95	--	7	7	6.92	6.92	6.96	6.96
Temperature, Ambient	Deg F				35	35	--	55	55	75	75	45	45
Temperature, Field	Deg C				7.87	7.87	--	12.29	12.29	16.65	16.65	46.52	46.52
Turbidity (Field)	NTU				4.56	4.56	--	9.81	9.81	7.52	7.52	4.71	4.71

Notes:

The analytical data is compared to the Michigan Part 201 generic cleanup criteria developed by the MDEQ under the authority of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended).

The foot notes for Part 201 criteria are presented in Appendix F.7

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The associated value is qualified as an estimated quantity.

UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.

R The data is qualified as unusable. (Note: Analyte may or may not be present).

APPENDIX I

TREATABILITY STUDY RESULTS

APPENDIX I

TREATABILITY STUDY RESULTS

INTRODUCTION

Soil and groundwater at the Revitalizing Auto Communities Environmental Response (RACER) Trust-CVO Site in Ypsilanti, Michigan are impacted by volatile organic compounds (VOCs) including benzene, 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). Petroleum hydrocarbons have also been detected at the Site. In situ treatment options for VOCs are being evaluated. As part of the evaluation, a treatability study was performed in 2010 and 2011 to test in situ chemical oxidation (ISCO) and in situ enhanced biodegradation (ISEB) for treatment of VOCs at the Site. The results of the treatability study are summarized below.

IN SITU CHEMICAL OXIDATION

ISCO is an effective technology for destroying a wide range of organic compounds. The technology is based on the use of strong oxidizing agents to completely oxidize the compounds within relatively short time periods. In a chemical oxidation reaction, the oxidizing agent breaks the carbon bonds in the compounds and converts them within hours into non-toxic compounds, primarily carbon dioxide and water.

The oxidizing agents most commonly used include:

- Potassium permanganate ($KMnO_4$)
- Fenton's Reagent (a solution of hydrogen peroxide [H_2O_2] and ferrous sulfate)
- Ozone
- Catalyzed Sodium persulfate

$KMnO_4$ is easier to handle than Fenton's Reagent, which is pH-dependent and requires the use of ferrous salt as a catalyst for optimum performance. Sodium persulfate creates fewer health and safety concerns than Fenton's Reagent but also requires activation by a catalyst. The application of $KMnO_4$, Fenton's Reagent, and catalyzed sodium persulfate involves simple methods and does not require the sophisticated equipment used in ozone treatment. $KMnO_4$ is effective for treatment of VOCs that have carbon-carbon double bonds, including trichloroethylene and its daughter products,

cis-1,2-dichloroethylene and VC. Fenton's Reagent and catalyzed sodium persulfate are very strong oxidants and can oxidize single carbon bonds; therefore, a wider range of compounds can be oxidized by these oxidants including benzene, toluene, ethylbenzene, and xylene (BTEX) and petroleum hydrocarbons.

ISCO is Site-specific, and successful treatment is typically a function of the effectiveness of the delivery system (being able to deliver sufficient amounts of oxidant to the impacted soil and making sufficient "contact") and subsequent transport of the oxidant within the soil matrix. The treatment performance is dependent to a great extent on the soil and groundwater chemistry.

A critical factor in the evaluation of ISCO treatment is determining the dosages of oxidant that are required to effectively oxidize the contaminants present (referred to as stoichiometric demand), as well as the competing reactions. The competing reactions are typically caused by the presence of natural organic materials such as humates and fulvates, as well as reduced metal species. The consumption of oxidants by these non-target compounds is defined as natural oxidant demand (NOD). The NOD combines with the stoichiometric demand to form the total oxidant demand (TOD). In order to determine the optimum dosage, treatability studies are required.

In Situ Enhanced Biodegradation

In situ biodegradation (aerobic or anaerobic) is a treatment process whereby contaminants are metabolized into less toxic or non-toxic compounds by naturally occurring microorganisms. The microorganisms utilize the hydrocarbons as a source of carbon and energy. In order to stimulate biological activity, biodegradation processes can be enhanced by the injection of nutrients, microbial cultures, suitable electron acceptors, and carbon/energy sources. Site conditions can be manipulated to enhance in situ biodegradation processes and speed up degradation rates of Site hydrocarbons. In this process, several techniques can be applied to enhance biodegradation of the hydrocarbons, such as:

i) Injection of air, oxygen, oxygen release compound (ORC), or magnesium, calcium, or hydrogen peroxide to enhance biodegradation of the hydrocarbons under aerobic conditions.

ii) Injection of an organic substrate such as soy-lactate or hydrogen release compound (HRC) to stimulate enhanced biodegradation of certain compounds such as tetrachloroethene (PCE), trichloroethene (TCE), and highly chlorinated aromatic compounds under anaerobic conditions. Injection of nitrate and/or

sulfate to enhance the biodegradation of hydrocarbons under anaerobic conditions by denitrification/sulfate reduction.

iii) Nutrient supplementation with suitable sources of nitrogen and phosphorus to enhance biodegradation of contaminants by indigenous microbial population.

iv) Bioaugmentation by injection of microbial cultures to improve the effectiveness of the microbial population in degrading the compounds of concern.

One, or a combination of these techniques, can be applied based on the groundwater conditions. Typically, the groundwater becomes nutrient deficient during enhanced biodegradation; therefore, nutrient supplementation is considered. Bioaugmentation is used when the natural microbial population has been shown to be unable to degrade all the contaminants present or where it is considered necessary to augment the natural biodegradation process.

LABORATORY TREATABILITY STUDY

OBJECTIVES

The objectives of the laboratory treatability study were:

- To assess the effectiveness of ISCO using catalyzed sodium persulfate for treatment of VOCs in representative soil and groundwater samples
- To assess the soil TOD
- To determine the effective concentration/dosage of oxidant required to complete treatment as expeditiously as possible
- To determine whether the introduction of oxidizing conditions has the potential to solubilize metals from soil into groundwater
- Assess the effectiveness of enhanced biodegradation for treating VOC
- Determine appropriate amendments to enhance biodegradation
- Determine the optimum dosages of amendment to enhance biodegradation

Task 1 – Initial Characterization

The treatability study was performed using soil and groundwater samples collected from the Site. Two groundwater samples and two soil samples were received in

Conestoga-Rovers & Associates' (CRA's) laboratory located in Niagara Falls, New York on October 27, 2010.

Upon arrival at the laboratory, the soil and groundwater samples were analyzed for VOC.

The two groundwater samples received were from MW-19-02 and IW-12. The sample from MW-19-02 contained VC at 12,600 micrograms per liter (µg/L), cis-1,2-DCE at 9,560 µg/L, and benzene at 9.8 µg/L. The sample from IW-12 contained VC at 22,400 µg/L, cis-1,2-DCE at 52,000 µg/L, benzene at 297 µg/L, 1,1-DCE at 137 µg/L, and toluene at 119 µg/L and low concentrations of ethylbenzene, xylenes, and TCE. These data are shown in Table 1.

The two soil samples received were also from MW-19-02 and IW-12. The sample from MW-19-02 contained 4,410 micrograms per kilogram (µg/kg) cis-1,2-DCE and 283 µg/kg benzene. The sample from IW-12 contained 20,600 µg/kg cis-1,2-DCE, 2,330 µg/kg VC, 311 µg/kg toluene, and 352 µg/kg xylenes. These data are shown in Table 2.

Separate treatability studies were performed on the MW-19-02 samples and the IW-12 samples.

Task 2 – Chemical Oxidation Microcosm Tests

Although sodium persulfate can be catalyzed by heat, chelated metals, and hydrogen peroxide, high pH catalysis was chosen for this application due to its effectiveness and ease and safety of application. Therefore both the soil and groundwater samples were titrated with sodium hydroxide (NaOH) to determine the amount of NaOH that was required to raise the pH of the soil and groundwater to a pH of 10.5. pH 10.5 has been found to be the optimum pH for sodium persulfate catalysis. For each of the groundwater samples, 0.25 gram (g) of NaOH per liter (L) of groundwater was required. For each of the soil samples, 0.75 g of NaOH per kg of soil was required.

A series of batch microcosm tests were prepared using the groundwater and soil samples from the Site. The tests were designed to assess the effectiveness of base catalyzed sodium persulfate for treatment of Site contaminants in the groundwater and soils and to determine the optimum concentration range of the oxidant to be used for the full-scale application.

The groundwater microcosm tests consisted of placing 110 milliliters (mL) of groundwater in 120-mL serum bottles and mixing with 10 mL of catalyzed sodium persulfate solution. The catalyzed sodium persulfate solutions consisted of sodium persulfate at concentrations of 5 percent, 10 percent, and 15 percent w/w and enough NaOH to adjust the pH of the soil to pH 10.5 and two additional moles of NaOH for each mole of sodium persulfate added. Control tests were prepared similarly but without the use of an oxidizing agent solution. The bottles were sealed immediately to prevent losses of chemicals by volatilization and incubated in the dark at laboratory temperature for 2 weeks.

The soil microcosm tests consisted of placing 100 g of soil in 4-ounce (oz.) glass jars and mixing with 25 mL of catalyzed sodium persulfate solution. The catalyzed sodium persulfate solutions consisted of sodium persulfate at concentrations of 5 percent, 10 percent, and 15 percent w/w and enough NaOH to adjust the pH of the soil to pH 10.5 and two additional moles of NaOH for each mole of sodium persulfate added. Control tests were prepared similarly but without the use of an oxidizing agent solution. The jars were sealed immediately to prevent losses of chemicals by volatilization and incubated in the dark at laboratory temperature for 2 weeks.

At the end of the incubation period, the microcosms were sampled and analyzed for residual VOC. The results of these analyses are shown in Tables 3-6.

Treatment of the MW-19-02 groundwater sample with NaOH-catalyzed sodium persulfate at a dose of 4 g/L resulted in the treatment of all of the VOC except VC to non-detect levels. Greater than 99 percent of the VC was removed; however, it was still present at 8 µg/L. Increasing the oxidant dose to 8 g/L resulted in the treatment of VC to non-detect levels.

Treatment of the IW-12 groundwater sample with NaOH-catalyzed sodium persulfate at a dose of 8 g/L resulted in the treatment of all of the VOC except cis,1-2-DCE, and VC in one of the duplicate samples to non-detect levels. Greater than 99 percent treatment of cis-1,2-DCE and VC were obtained; however, due to the high initial concentrations of these compounds, low levels still remained after treatment.

Treatment of the soil sample from MW-19-02 with NaOH-catalyzed sodium persulfate at a dose of 37.5 g/kg resulted in the treatment of 91 percent of the cis-1,2-DCE and 83 percent of the trans-1,2-DCE.

Treatment of the soil sample from IW-12 with NaOH-catalyzed sodium persulfate at a dose of 37.5 g/kg resulted in the treatment of 78 percent of the cis-1,2-DCE, 56 percent of the trans-1,2-DCE, and 40 percent or greater of the BTEX compounds.

Task 3 - TOD

The sodium persulfate TOD of the soil samples was assessed by placing 50 g of soil in an 8-oz. jar and adding 100 mL of 15 percent NaOH-catalyzed sodium persulfate. The initial sodium persulfate concentration was recorded by measuring by titration. After 1 week, the jar was sampled and the sodium persulfate concentration recorded.

The TOD of soil sample MW-19-02 for NaOH-catalyzed sodium persulfate was 59.1 g/kg and of soil sample IW-12 was 78.1 g/kg.

Task 4 - Metals Leaching Test

In order to assess the potential release of metals as a result of the ISCO treatment, metals leaching tests were conducted. The tests were conducted on the soil sample in 8-oz. glass reactor jars. Fifty grams of the soil sample were placed in the reactor jar followed by 100 mL of a 2-percent (w/w) solution of NaOH-catalyzed sodium persulfate. A control test was prepared similarly but using distilled water instead of the oxidizing agent. The jars were incubated at room temperature for 2 weeks. After 2 weeks, the aqueous phase in the jars was filtered, and the supernatant water was tested for dissolved metals.

The results of these analyses are shown in Table 8. Treatment of soil sample MW-19-02 with NaOH-catalyzed sodium persulfate resulted in the solubilization of a small amount of aluminum, arsenic, selenium, and vanadium. Treatment of soil sample IW-12 resulted in the solubilization of a small amount of chromium. These results represent a worst case scenario because the oxidant concentration in the tests was significantly higher than would be encountered in the field. Also, our experience with solubilization due to chemical oxidation has been that the solubilization of materials from soil is temporary and that these compounds are not transported out of the treatment area. Once the solubilized materials have moved out of the highly oxidizing conditions in the treatment area, they appear to reprecipitate immediately. Based on studies by CRA and others, it is expected that any material solubilized by the proposed ISCO injection will be attenuated within a year of the final ISCO injection and that the compounds will not be transported out of the injection area.

Task 5 – Enhanced Aerobic Biodegradation Microcosm Tests

Microcosms were used to assess the potential for enhanced aerobic biodegradation of VOCs. Twenty grams of soil were placed in glass serum bottle along with 100 mL of groundwater and the appropriate amendments. Separate tests were set up for the MW-19-02 and IW-12 samples. Treatments were set up as follows:

1. Soil and groundwater (biotic control)
2. Soil, groundwater, and nutrients
3. Soil, groundwater, nutrients, and a microbial inoculum
4. Soil, groundwater, nutrients, a microbial inoculum, and sodium azide (killed control)

Oxygen was added to all of the microcosms every other day to maintain aerobic conditions.

The microcosms were sampled at t=0, t=4 weeks, and t=8 weeks and analyzed for residual VOCs.

The results of the microcosm testing are shown in Tables 10-17. For the MW-19-02 microcosms, greater than 99 percent of the VC had been treated in all of the microcosms except the azide treated control after 4 weeks. 83 percent of the benzene and greater than 55 percent of the 1,1-dichloroethene had also been treated in the microcosms that received nutrients. After 8 weeks, greater than 90 percent of all of the VOCs except trans-1,2-DCE had been treated in the microcosms that received nutrients. Treatment was slightly lower in the microcosms that received a microbial inoculum, indicating that the introduced microbes may have been competing with the native organisms that were able to degrade the VOCs.

For the IW-12 microcosms, after 4 weeks, greater than 75 percent of the toluene and greater than 90 percent of the ethylbenzene, VC, and xylenes were treated in the microcosms that received nutrients. After 8 weeks, treatment levels were similar except that greater than 65 percent removal of 1,1-DCA and trans-1,2-DCE was also observed in the microcosms that received a microbial inoculum. Significant treatment of benzene and cis-1,2-DCE was not observed in these microcosms.

The results of the enhanced biodegradation microcosms indicated that biodegradation was effective in treating the VOC from Site soil and groundwater. More complete

biodegradation was observed in the MW-19 microcosms where VOC concentrations were lower. For the IW-12 microcosms, it is likely that additional time and oxygen would be required to degrade the compounds present at higher concentrations such as benzene and cis-1,2-DCE. The results indicated that the addition of nutrients enhanced biodegradation but that the addition of a microbial inoculum was not required for biodegradation to occur; however, the addition of oxygen was necessary.

SUMMARY

- Catalyzed sodium persulfate was effective in treating the VOC present in groundwater.
- The effectiveness of treatment of soil and groundwater by base catalyzed sodium persulfate is summarized in the table below.

Matrix	*Groundwater*		*Soil*	
	MW-19-02	IW-12	MW-19-02	IW-12
NaOH-Catalyzed Sodium Persulfate	Dose of 4 g/L: removal of all VOCs except VC to non-detect levels. >99% of VC was removed.	Dose of dose 8 g/L: removal of all VOCs except cis,1-2-DCE and VC to non-detect levels. >99% removal of cis-1,2-DCE and VC were obtained.	Dose of 37.5 g/kg: removal of 91% of the cis-1,2-DCE and 83% of the trans-1,2-DCE.	Dose of 37.5 g/kg: removal of 78% of the cis-1,2-DCE, 56% of the trans-1,2-DCE, and 40% or greater of BTEX.

- The TOD of base catalyzed sodium persulfate was 59.1 g/kg for soil sample MW-19-02 and 87.1 g/kg for soil sample IW-12.
- Aerobic biodegradation was successful in removing VOC from Site soil.
- For MW-19-02, after 8 weeks, greater than 90 percent of all of the VOC except trans-1,2-DCE had been treated in the microcosms that received nutrients.
- The percentage of VOC treated in IW-12 was lower; however, significant degradation was observed. It is likely that increased time and additional oxygen would be required to treat the higher concentrations present.
- The results indicate that the addition of nutrients and oxygen were required for enhanced aerobic biodegradation to occur; however, the addition of a microbial inoculum was not required.

TABLE I.1

INITIAL GROUNDWATER CHARACTERIZATION
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*MW-19-02*	*IW-12*
Benzene	µg/L	9.80	297
1,1 Dichloroethene	µg/L	23.2	137
cis-1,2 Dichloroethene	µg/L	9560	52040
trans-1,2 Dichloroethene	µg/L	367	588
Ethylbenzene	µg/L	ND (2)	4.83
Toluene	µg/L	ND (2)	119
Trichloroethene	µg/L	ND (2)	2.92
Vinyl Chloride	µg/L	12600	22400
m/p Xylenes	µg/L	ND (2)	14.4
o Xylene	µg/L	ND (2)	13.9

TABLE I.2

INITIAL SOIL CHARACTERIZATION
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*MW19-02*	*IW-12*
Benzene	µg/kg	283	ND (200)
1,1 Dichloroethene	µg/kg	ND (100)	ND (200)
cis-1,2 Dichloroethene	µg/kg	4410	20600
trans-1,2 Dichloroethene	µg/kg	120	ND (200)
Ethylbenzene	µg/kg	ND (100)	ND (200)
Toluene	µg/kg	ND (100)	311
Trichloroethene	µg/kg	ND (100)	ND (200)
Vinyl Chloride	µg/kg	ND (100)	2330
m/p Xylenes	µg/kg	ND (100)	226
o Xylene	µg/kg	ND (100)	126

TABLE I.3

TREATMENT OF GROUNDWATER MW19-02 WITH SODIUM HYDROXIDE CATALYZED PERSULFATE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	*1% S2O8*	*5% S2O8*	*10% S2O8*
Loading Rate	g/L	0	0.8	4	8
Benzene	µg/L	8.36 / 806	5.40 / 4.54	ND (2) / ND (2)	ND (2) / ND (2)
1,1 Dichloroethene	µg/L	25.5 / 24.7	14.3 / 15.1	ND (2) / ND (2)	ND (2) / ND (2)
cis-1,2 Dichloroethene	µg/L	5010 / 5170	4190 / 3840	ND (2) / ND (2)	ND (2) / ND (2)
trans-1,2 Dichloroethene	µg/L	200 / 211	154 / 144	ND (2) / ND (2)	ND (2) / ND (2)
Ethylbenzene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Toluene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	11200 / 11200	6570 / 6340	8.60 / 7.29	ND (2) / ND (2)
m/p Xylenes	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
o Xylene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
% Removal of Benzene	%		39.5	>88	>88
% Removal of 1,1 Dichloroethene	%		41.4	>96	>96
% Removal of cis-1,2 Dichloroethene	%		21.1	>99	>99
% Removal of trans-1,2 Dichloroethen	%		27.6	>99	>99
% Removal of Vinyl Chloride	%		42.3	>99	>99

TABLE I.4

TREATMENT OF GROUNDWATER IW12 WITH SODIUM HYDROXIDE CATALYZED PERSULFATE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	*1% S2O8*	*5% S2O8*	*10% S2O8*
Loading Rate	g/L	0	0.8	4	8
Benzene	µg/L	204 / 191	187 / 178	68.9 / 60.3	ND (2) / ND (2)
1,1 Dichloroethene	µg/L	98.1 / 97.1	73.1 / 72.13	ND (2) / ND (2)	ND (2) / ND (2)
cis-1,2 Dichloroethene	µg/L	21900 / 23100	21400 / 21400	6540 / 5910	4.74 / 17.6
trans-1,2 Dichloroethene	µg/L	350 / 350	327 / 316	254 / 223	ND (2) / ND (2)
Ethylbenzene	µg/L	3.43 / 3.34	2.89 / 2.56	ND (2) / ND (2)	ND (2) / ND (2)
Toluene	µg/L	70.1 / 70.4	60.5 / 53.3	7.97 / 6.64	ND (2) / ND (2)
Trichloroethene	µg/L	2.55 / 2.45	2.42 / 2.41	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	22500 / 21800	16800 / 16200	48.8 / 46.1	7.85 / ND (2)
m/p Xylenes	µg/L	6.42 / 6.13	4.58 / 4.40	ND (2) / ND (2)	ND (2) / ND (2)
o Xylene	µg/L	7.09 / 7.07	5.81 / 5.55	ND (2) / ND (2)	ND (2) / ND (2)
% Removal of Benzene			7.51	67.3	>99
% Removal of 1,1 Dichloroethene			25.6	>99	>99
% Removal of cis-1,2 Dichloroethene			5.01	72.4	>99
% Removal of trans-1,2 Dichloroethene			8.27	31.9	>99
% Removal of Ethylbenzene			19.5	>70	>70
% Removal of Toluene			19.0	89.6	>98
% Removal of Trichloroethene			3.40	>60	>60
% Removal of Vinyl Chloride			25.5	>99	>99
% Removal of m/p Xylenes			28.4	>84	>84
% Removal of o Xylene			19.8	>85	>85

TABLE I.5

TREATMENT OF SOIL MW19-02 WITH SODIUM HYDROXIDE CATALYZED PERSULFATE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	*5% S2O8*	*10% S2O8*	*15% S2O8*
Loading Rate	g/kg	0	12.5	25	37.5
Benzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
1,1 Dichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
cis-1,2 Dichloroethene	µg/kg	2740 / 1660	942 / 1090	606 / 595	187 / 209
trans-1,2 Dichloroethene	µg/kg	131 / 94.1	113 / 122	64.8 / 52.5	13.98 J / 23.1 J
Ethylbenzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Toluene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Trichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Vinyl Chloride	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
m/p Xylenes	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
o Xylene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
% Removal of cis-1,2 Dichloroethene			53.8	72.8	91.0
% Removal of trans-1,2 Dichloroethene			<1	47.8	83.6

Notes:
J - Estimated result. Result less then reporting limit.

TABLE I.6

TREATMENT OF SOIL IW12 WITH SODIUM HYDROXIDE CATALYZED PERSULFATE
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	*5% S2O8*	*10% S2O8*	*15% S2O8*
Loading Rate	g/kg	0	12.5	25	37.5
Benzene	µg/kg	56.9 / 65.9	51.2 / 61.6	49.8 / 130	35.4 / 38.4
1,1 Dichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
cis-1,2 Dichloroethene	µg/kg	5910 / 9170	6400 / 8610	2420 / 2260	1540 / 1780
trans-1,2 Dichloroethene	µg/kg	121 / 189	418 / 518.	220 / 216	42.8 / 92.8
Ethylbenzene	µg/kg	44.9 / 45.8	46.9 / 45.9	38.2 / 36.6	26.3 / 21.9
Toluene	µg/kg	178 / 205	204 / 193	169 / 228	116 / 102
Trichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Vinyl Chloride	µg/kg	ND (50) / ND (50)	659 / 718	ND (50) / ND (50)	ND (50) / ND (50)
m/p Xylenes	µg/kg	133 / 125	122 / 136	107 / 145	70.9 / 71.9
o Xylene	µg/kg	128 / 126	93.5 / 90.4	78.6 / 104	81.2 / 75.3
% Removal of Benzene			8.15	<1	39.8
% Removal of cis-1,2 Dichloroethene			<1	68.9	78.0
% Removal of trans-1,2 Dichloroethene			<1	<1	56.4
% Removal of Ethylbenzene			<1	17.6	46.9
% Removal of Toluene			<1	<1	43.0
% Removal of m/p Xylenes			<1	2.58	44.7
% Removal of o Xylene			27.7	28.4	38.5

TABLE I.7

ANALYSIS OF SOIL TOTAL OXIDANT DEMAND
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

	Units	*MW-19*	*IW-12*
Sodium persulfate concentration at T=0	g/L	208	196
Sodium persulfate concentration at T=7 days	g/L	167	145
Amount of sodium persulfate consumed by TOD per kg of soil after 7 days	g/kg	59.1	78.1

TABLE I.8

SAMPLE MW19-02 METALS LEACHING ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	S_2O_8
Dissolved Aluminum	µg/L	98.9 J	3170
Dissolved Antimony	µg/L	ND (50)	ND (50)
Dissolved Arsenic	µg/L	ND (50)	185
Dissolved Barium	µg/L	32.4 J	9.40 J
Dissolved Beryllium	µg/L	ND (20)	ND (20)
Dissolved Cadmium	µg/L	ND (25)	ND (25)
Dissolved Calcium	µg/L	41700	5630 J
Dissolved Chromium	µg/L	ND (25)	27.2
Dissolved Cobalt	µg/L	ND (250)	ND (250)
Dissolved Copper	µg/L	ND (125)	17.6 J
Dissolved Iron	µg/L	71.6 J	349 J
Dissolved Lead	µg/L	ND (15)	ND (15)
Dissolved Magnesium	µg/L	4510 J	ND (25000)
Dissolved Manganese	µg/L	115	ND (75)
Dissolved Mercury	µg/L	ND (0.2)	0.091 B, J
Dissolved Nickel	µg/L	ND (200)	ND (200)
Dissolved Potassium	µg/L	2690 J	4450 J
Dissolved Selenium	µg/L	ND (25)	43.6
Dissolved Silver	µg/L	ND (25)	ND (25)
Dissolved Sodium	µg/L	17300 J	2260000
Dissolved Thallium	µg/L	ND (50)	ND (50)
Dissolved Vanadium	µg/L	ND (250)	79.0 J
Dissolved Zinc	µg/L	38.4	ND (100)

Notes:
B - Method blank contamination.
J - Estimated result.

TABLE I.9

SAMPLE IW12 METALS LEACHING ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*Control*	S_2O_8
Dissolved Aluminum	µg/L	144 J	126 J
Dissolved Antimony	µg/L	ND (50)	ND (50)
Dissolved Arsenic	µg/L	ND (50)	17.2 J
Dissolved Barium	µg/L	6.70 J	3.30 J
Dissolved Beryllium	µg/L	ND (20)	ND (20)
Dissolved Cadmium	µg/L	ND (25)	ND (25)
Dissolved Calcium	µg/L	49400	29700
Dissolved Chromium	µg/L	ND (25)	158
Dissolved Cobalt	µg/L	ND (250)	ND (250)
Dissolved Copper	µg/L	ND (125)	ND (125)
Dissolved Iron	µg/L	144 J	61.6 J
Dissolved Lead	µg/L	ND (15)	ND (15)
Dissolved Magnesium	µg/L	3640 J	2750 J
Dissolved Manganese	µg/L	1050	82
Dissolved Mercury	µg/L	0.058 B, J	0.054 B, J
Dissolved Nickel	µg/L	ND (200)	ND (200)
Dissolved Potassium	µg/L	4490 J	9150 J
Dissolved Selenium	µg/L	ND (25)	ND (25)
Dissolved Silver	µg/L	ND (25)	ND (25)
Dissolved Sodium	µg/L	17300 J	2260000
Dissolved Thallium	µg/L	ND (50)	ND (50)
Dissolved Vanadium	µg/L	ND (250)	ND (250)
Dissolved Zinc	µg/L	ND (100)	ND (100)

Notes:
B - Method blank contamination.
J - Estimated result.

TABLE I.10

BIOSTUDY T=4 WEEK-GROUNDWATER MW19-02 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/L	7.12 / 7.08	8.49 / 7.61	ND (2) / ND (2)	ND (2) / ND (2)	6.89 / 6.23
1,1 Dichloroethene	µg/L	20.4 / 21.5	11.9 / 10.1	9.02 / 9.16	8.45 / 9.60	18.4 / 18.5
cis-1,2 Dichloroethene	µg/L	6310 / 6330	4490 / 4400	3630 / 3750	3870 / 4150	4960 / 4950
trans-1,2 Dichloroethene	µg/L	226 / 228	195 / 173	181 / 189	164 / 193	207 / 230
Ethylbenzene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Toluene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Trichloroethene	µg/L	2.25 / 2.40	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	12600 / 12400	12.1 / 14.5	12.2 / 11.4	7.86 / ND (5)	9140 / 9190
m/p Xylenes	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
o Xylene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Overall Removals						
% Removal of Benzene			<1	>83	>83	7.3
% Removal of 1,1 Dichloroethene			23.4	55.9	56.2	<1
% Removal of cis-1,2 Dichloroethene			1.30	20.8	24.2	2.32
% Removal of trans-1,2 Dichloroethene			<1	<1	<1	<1
% Removal of Trichloroethene			>93.5	>93.5	>93.5	>93.5
% Removal of Vinyl Chloride			99.9	99.9	99.9	22.7

TABLE I.11

BIOSTUDY T=4-WEEK SOIL MW19-02 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
1,1 Dichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	189 / 194
cis-1,2 Dichloroethene	µg/kg	2370 / 2120	7780 / 10900	6560 / 7490	6860 / 6770	7270 / 6830
trans-1,2 Dichloroethene	µg/kg	76.1 / 65.2	302 / 484	288 / 385	245 / 293	241 / 278
Ethylbenzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Toluene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Trichloroethene	µg/kg	66.1 / 68.5	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Vinyl Chloride	µg/kg	1380 / 784	ND (125) / ND (125)	ND (125) / ND (125)	ND (125) / ND (125)	2750 / 2890
m/p Xylenes	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
o Xylene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)

TABLE I.12

BIOSTUDY T=8-WEEK GROUNDWATER MW19-02 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/L	7.12 / 7.08	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	4.05 / 4.13
1,1 Dichloroethene	µg/L	20.4 / 21.5	ND (2) / 3.41	ND (2) / ND (2)	ND (2) / ND (2)	9.61 / 9.97
cis-1,2 Dichloroethene	µg/L	6310 / 6330	2760 / 1230	349 / 63.8	714 / 1380	2110 / 3560
trans-1,2 Dichloroethene	µg/L	226 / 230	156 / 168	82.6 / 111	160 / 121	175 / 167
Ethylbenzene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Toluene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Trichloroethene	µg/L	2.25 / 2.40	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	12600 / 12400	ND (2) / ND (2)	917 / ND (2)	ND (2) / ND (2)	8300 / 8490
m/p Xylenes	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
o Xylene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Overall Removals						
% Removal of Benzene			>83	>83	>83	41.0
% Removal of 1,1 Dichloroethene			88.4	94.1	94.1	<1
% Removal of cis-1,2 Dichloroethene			54.4	94.1	69.8	42.7
% Removal of trans-1,2 Dichloroethene			3.04	29.8	<1	7.36
% Removal of Trichloroethene			>93.5	>93.5	>93.5	>93.5
% Removal of Vinyl Chloride			>99	>99	>99	29.7

TABLE I.13

BIOSTUDY T=8-WEEK SOIL MW19-02 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
1,1 Dichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
cis-1,2 Dichloroethene	µg/kg	2370 / 2120	4390 / 4770	1020 / 600	4130 / 4110	4480 / 4420
trans-1,2 Dichloroethene	µg/kg	76.1 / 65.2	271 / 332	314 / 287	524 / 382	224 / 221
Ethylbenzene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Toluene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Trichloroethene	µg/kg	66.1 / 68.5	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Vinyl Chloride	µg/kg	1380 / 784	ND (125) / ND (125)	ND (125) / ND (125)	ND (125) / ND (125)	2290 / 2260
m/p Xylenes	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
o Xylene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)

TABLE I.14

BIOSTUDY T=4-WEEK GROUNDWATER IW12 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/L	148 / 158	201 / 200	207 / 168	176 / 151	201 / 194
1,1 Dichloroethene	µg/L	71.3 / 70.7	64.9 / 60.5	48.8 / 42.9	44.3 / 48.3	66.6 / 67.4
cis-1,2 Dichloroethene	µg/L	24300 / 24600	14800 / 14200	14700 / 12800	12500 / 12100	13600 / 12800
trans-1,2 Dichloroethene	µg/L	336 / 349	263 / 338	229 / 219	300 / 374	386 / 448
Ethylbenzene	µg/L	3.63 / 3.34	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	2.01 / 3.44
Toluene	µg/L	66.3 / 70.2	21.7 8 / 20.8	9.91 / 8.22	9.91 / 7.87	48.9 / 64.7
Trichloroethene	µg/L	2.64 / 2.14	3.01 / 2.95	3.05 / 2.77	2.89 / 3.04	2.77 / 2.88
Vinyl Chloride	µg/L	15700 / 16800	3560 / 274	48.9 / 33.4	22.4 / 22.3	9210 / 9910
m/p Xylenes	µg/L	7.80 / 8.51	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	3.35 / 8.55
o Xylene	µg/L	7.57 / 8.23	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	5.72 / 7.61
% Removal of Benzene			<1	<1	<1	<1
% Removal of 1,1 Dichloroethene			<1	<1	<1	<1
% Removal of cis-1,2 Dichloroethene			30.0	33.6	36.2	34.5
% Removal of trans-1,2 Dichloroethene			6.12	27.9	<1	<1
% Removal of Ethylbenzene			>94.4	>94.4	>94.4	50.6
% Removal of Toluene			32.2	75.7	88.7	<1
% Removal of Trichloroethene			<1	<1	<1	<1
% Removal of Vinyl Chloride			87.7	99.8	99.9	35.2
% Removal of m/p Xylenes			97.4	>97.4	>97.4	33.9
% Removal of o Xylene			96.8	>96.8	>96.8	22.8

TABLE I.15

BIOSTUDY T=4-WEEK SOIL IW12 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/kg	ND (100) / ND (100)	250 / 180	196 / 159	175 / 210	172 / 113
1,1 Dichloroethene	µg/kg	ND (100) / ND (100)	193 / ND (100)	179 / 182	189 / 197	198 / 199
cis-1,2 Dichloroethene	µg/kg	ND (100) / ND (100)	17800 / 13400	15060 / 14300	14700 / 21500	15100 / 16800
trans-1,2 Dichloroethene	µg/kg	85.1 / 66.2	207 / 108	146 / 148	159 / 341	193 / 255
Ethylbenzene	µg/kg	101 / ND (100)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / 65.5
Toluene	µg/kg	ND (100) / ND (100)	143 / 125	83.3 / ND (50)	ND (50) / ND (50)	224 / 288
Trichloroethene	µg/kg	ND (100) / ND (100)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)
Vinyl Chloride	µg/kg	1400 / 1410	989 / ND (125)	ND (125) / ND (125)	ND (125) / ND (125)	2760 / 2770
m/p Xylenes	µg/kg	149 / 166	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	64.5 / 140
o Xylene	µg/kg	113 / 133	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	90.3 / 94.8

TABLE I.16

BIOSTUDY T=8-WEEK GROUNDWATER IW12 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/L	148 / 158	116 / 118	114 / 106	134 / 122	134 / 113
1,1 Dichloroethene	µg/L	71.3 / 70.7	44.3 / 34.4	41.9 / 40.7	31.7 / ND (2)	34.3 / 43.1
cis-1,2 Dichloroethene	µg/L	24300 / 24600	23500 / 21000	22200 / 21600	19900 / 19400	19700 / 21300
trans-1,2 Dichloroethene	µg/L	336 / 349	372 / 84.3	209 / 213	55.9 / 108	318 / 367
Ethylbenzene	µg/L	3.63 / 3.34	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	3.33 / 2.91
Toluene	µg/L	66.3 / 70.2	10.1 / 8.32	3.63 / 4.31	2.86/ ND (2)	30.3 / 36.4
Trichloroethene	µg/L	2.64 / 2.14	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / 3.19
Vinyl Chloride	µg/L	15700 / 16800	35.8 / 22.4	22.8 / 17.3	10.6 / 6.00	17400 / 17700
m/p Xylenes	µg/L	7.80 / 8.51	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	3.20 / 5.80
o Xylene	µg/L	7.57 / 8.23	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	4.86 / 5.01
% Removal Benzene			<1	4.0	<1	<1
% Removal 1,1 Dichloroethene			39.4	35.5	65.4	35.6
% Removal cis-1,2 Dichloroethene			1.3	3.2	15.3	5.0
% Removal trans-1,2 Dichloroethene			12.1	23.6	68.6	<1
% Removal Ethylbenzene			>94.4	>94.4	>94.4	<1
% Removal Toluene			33.2	67.9	82.1	<1
% Removal Trichloroethene			>9.3	>9.3	>9.3	2.0
% Removal Vinyl Chloride			99.8	99.9	99.9	<1
% Removal m/p Xylenes			97.4	97.4	97.4	<1
% Removal o Xylene			96.8	96.8	96.8	<1

TABLE I.17

BIOSTUDY T=8-WEEK SOIL IW12 ANALYSES
SITE SUMMARY REPORT
FORMER GENERAL MOTORS COMPANY VEHICLE OPERATIONS PROPERTY
YPSILANTI, MICHIGAN

Parameters	*Units*	*T=0*	*Soil and Groundwater*	*Soil, GW, and Nutrients*	*Soil, GW, Nutrients, and Inoculum*	*Soil, GW, Nutrients, Inoc, and Azide*
Benzene	µg/kg	ND (100) / ND (100)	305 / 199	175 / 215	187 / 197	203 / 225
I	µg/kg	ND (100) / ND (100)	40.2 / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / 70.6
cis-1,2 Dichloroethene	µg/kg	ND (100) / ND (100)	22500 / 11300	12600 / 15900	9860 / 10700	11100 / 24600
trans-1,2 Dichloroethene	µg/kg	85.1 / 66.2	555 / 164	225 / 298	119 / 135	211 / 812
Ethylbenzene	µg/kg	101 / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / 133
Toluene	µg/kg	ND (100) / ND (100)	201 / 157	ND (100) / ND (100)	ND (100) / ND (100)	265 / 399
Trichloroethene	µg/kg	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)
Vinyl Chloride	µg/kg	1400 / 1410	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	1320 / 2280
m/p Xylenes	µg/kg	149 / 166	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	141 / 291
o Xylene	µg/kg	113 / 133	ND (100) / ND (100)	ND (100) / ND (100)	ND (100) / ND (100)	144 / 178