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Section 1

BLASLAND, BOUCK & LEE, INC.
e n g i n e e r s & s c i e n t i s t s

1. Introduction

1.1 Purpose of the Investigation

Blasland, Bouck & Lee, Inc. (BBL) performed a Phase II Environmental Site Investigation (ESI) in March 1997 at the former Building 9 Property (Property) Delphi - Flint West Facility (Flint West) located at 300 Chevrolet Avenue, Flint, Michigan (Figure 1). A Phase II ESI is an intrusive investigation to determine the presence or absence of contamination. This investigation was consistent with the Michigan Department of Environmental Quality's (MDEQ) Draft Hydrogeologic Study Guidance (1990).

The purpose of the Phase II ESI was:

- 1) To determine whether hazardous substances or oil had been released to the environment at the potential areas of environmental concern (PAOCs) identified in the Phase I Environmental Site Assessment (ESA) prepared in February 1997 by BBL; and
- 2) To determine the concentrations of hazardous substances in the subsurface and compare those levels to risk-based cleanup criteria described below.

A PAOC is defined as an area with a documented release of hazardous substances or petroleum products that could pose an unacceptable risk to human health or the environment. Risk-based cleanup criteria are exposure threshold values that pose a significant risk to human health or the environment as defined in amendments to Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 of Public Act (PA) 451 (Formerly Michigan Environmental Response Act [MERA], PA 307). These amendments are reflected in the generic industrial and commercial land use criteria listed in Operational Memorandum #14, Revision 2 (OM #14), and subsequent addenda to OM #14.

1.2 Scope of Work

The Phase II ESI field investigation included installation of soil borings and temporary monitoring wells, soil screening and laboratory analysis to determine if potential soil and/or groundwater contamination is present at the Property.

The ESI focused on the following:

- The hazardous substances and oil known or likely to have been managed at the PAOCs identified in the Phase I ESA for the facility (BBL, 1996);
- The areas most likely to have been impacted by the suspected releases; and
- Reviewing and incorporating analysis protocols outlined in OM #6 to ensure that the work was consistent with Part 201 of Pubic Act 451.

1.3 Report Organization

This report is organized into five sections. Section 1 discusses the purpose of the Phase II ESI and outlines the scope. Section 2 summarizes the Property background, history, subsurface lithology, hydrogeology, previous

investigations, and current investigations. Section 3 describes the technical approach for the Phase II ESI, including a detailed description of the work performed and a summary of the sampling and analysis methodology employed. Section 4 presents a discussion of the applicable regulatory standards, and a discussion of the sampling and analysis results at each PAOC detailed in the Phase I ESA. Section 5 presents the conclusions of the Phase II ESI. Section 6 is a listing of reference material.

Section 2

BLASLAND, BOUCK & LEE, INC.
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2. Site Background and History

2.1 Property Description

Building No. 9 at Flint West was constructed in 1929 and was initially used as a machine shop. The machine shop evolved into an assembly line manufacturing plant. The major products manufactured at this plant were intake and exhaust engine valves. Throughout the history of the plant, processes associated with intake and exhaust engine valve manufacturing included forming, forging, grinding, plating, and heat treating. The former plating area (Figure 2) was operational from 1982 to 1991. An addition was made to the Property in 1971 and an overhang roof was added to the north storage area in 1986. The total area of the building was approximately 80,897 square feet. The building was demolished in 1996. Prior to demolition, the manufacturing process machines had been removed from the plant.

Deactivation activities at Building 9 included removal of the machinery and wooden floor blocks, cleaning, filling, and concrete capping of trenches and sumps, and demolition of the plant building. There are no immediate plans for use of the land and the parcel is currently intended for industrial/commercial land use.

Building 9 is bordered by industrial automotive manufacturing facilities to the east, southeast, north and west. To the immediate south is a parking lot. Residential homes are located beyond the parking lot to the south and southwest. Plant No. 38, a 326,000-square foot manufacturing facility, is located to the southeast of the Property.

2.2 Surrounding Land Use

Buildings associated with Flint West are situated along a one mile stretch of the Flint River. The Facility formerly consisted of approximately 40 buildings, however, eleven buildings have been demolished and others have been sold. Buildings at Flint West range from a few hundred-square feet to more than 700,000-square feet in size. The surrounding properties associated with the Facility were developed for the manufacture and assembly of automobiles and automobile parts as early as 1915.

The Property is bordered to the east by Stevenson Street, which has a stormwater runoff gradient to the north towards the Flint river. Beyond Stevenson street is a large automobile parking lot. To the south side of Building 9 is an asphalt parking lot with stormwater runoff controlled by drains. The west side of Building 9 consists of railroad tracks and an asphalt/cobblestone road proceeding down a gradient towards the west.

The Flint River, in the vicinity of the Property, is controlled and contained within a concrete trench constructed in 1966 and 1967 by the United States Army Corp of Engineers. The trench is bordered by parking areas and Facility support roads.

2.3 Environmental Setting

This section is a discussion of local and regional environmental conditions that impact surface and groundwater conditions at the Property.

2.3.1 Topography

Property topography is affected by the proximity of Building No. 9 to the Flint River. The Property is located approximately one-tenth of a mile south of the river and approximately 756 feet above mean sea level. The Property was approximately 10 to 13 feet above the water level of the river at the time of BBL's Property visit. The

topography on the Property is generally flat, but the surrounding land is sloped towards the Flint River. The Property is overlain with concrete and asphalt. A pumping and trenching system, designed to intercept stormwater generated from the north storage yard, pumps stormwater to the GM industrial wastewater pretreatment plant (IWWPTP) for Flint West.

2.3.2 Geology and Hydrogeology

Pleistocene glacial drift overlays Paleozoic sedimentary rocks in the Flint area (Wiitala *et al.*, 1963). Pre-Cambrian igneous and metamorphic rocks of the Canadian shield form the bedrock upon which several thousand feet of sandstone, limestone, shale, and evaporites of the Michigan Basin have been deposited. The Flint area is located in the southeast portion of the basin.

Glacial drift of generally low hydraulic conductivity mantles the bedrock in nearly all parts of Genesee County. These deposits consist of clay, silty sand, gravel, and boulders. Hydraulic conductivity is highly variable in both the horizontal and vertical planes. Glacial deposits, in general, are an important source of water in Michigan. However, outwash plains and buried stream valleys are the most productive facies. The lacustrine deposits that are predominant in the vicinity of Flint have low permeabilities due to the abundance of clay (Wiitala *et al.*, 1963). Thin lenses of permeable sand and gravel yield adequate water for domestic use, but the primary source of groundwater in communities surrounding the Flint area is the Pennsylvanian Saginaw aquifer (Wiitala *et al.*, 1963). The City of Flint itself purchases water from the City of Detroit, which obtains water from Lake Huron (City of Flint Water Services, personal communication). The glacial deposits are approximately 50 feet thick in the vicinity of Flint (Genesee County Department of Public Health, personal communication). The top of the Saginaw formation lies between 600 and 700 feet above mean sea level MSL. The Property is approximately 756 feet above MSL.

In the vicinity of Flint, sandstones of the Pennsylvanian Grand River and Saginaw formations form the uppermost bedrock aquifer. Fractures greatly enhance the permeability of the sandstone beds. The thickness of the Grand River-Saginaw aquifer varies from 200 feet to 400 feet (Mandle and Westjohn, 1989).

Shale, siltstone, and thin-bedded sandstone intercalated with shale of the lower Saginaw formation serve as a regional confining unit separating the Grand River-Saginaw aquifer from the Parma-Bayport aquifer (Wiitala *et al.*, 1963). The Late Mississippian Bayport Limestone and the Early Pennsylvanian Parma Sandstone Member of the Saginaw formation make up the Parma-Bayport aquifer. The Bayport Parma aquifer is not used as a source of water in the vicinity of Flint (Westjohn and Weaver, 1996).

The Mississippian Michigan formation lies beneath the Saginaw formation. The upper portion is composed of shale, thin-bedded limestone, dolomite, gypsum, and anhydrite, and separates the Parma-Bayport aquifer from the Marshall aquifer (Mandle and Westjohn, 1989). Sandstones in the lower portion are hydraulically connected to the Early Mississippian Marshall Sandstone below and compose the Marshall aquifer. The thickness of the Michigan formation averages around 100 feet in the vicinity of Flint (Wiitala *et al.*, 1963).

The Marshall formation is present in most of Genesee County. It consists primarily of sandstone, with some beds of conglomerate, shale, and dolomite. Thickness varies from over 200 feet in the northern part of the county to 70 feet in the south. In some places, the Marshall, Michigan, and Saginaw formations form a single aquifer (Wiitala *et al.*, 1963).

The Early Mississippian Coldwater Shale forms the base of the aquifer system and ranges in thickness from 500 to 1,100 feet.

2.3.3 Site-Specific Geology

The geology beneath the Property was characterized from soils collected during the installation of soil borings and monitoring wells. Sands, silty sands, and clayey sands were present beneath a layer of fill that included coal (in PAOC # 5) and metal shavings (in PAOC # 3). The water-table in this area lies approximately 10 to 20 feet below land surface (BLS), depending on the distance from the Flint River. During the Phase II ESI investigation, the depth to the water table ranged from 12 to 20 feet BLS. The native clay and till in the Flint vicinity are not useable aquifers, and according to the Genesee County Health Department (personal communication), there have been no potable water wells drilled to tap the glacial drift at least since 1967, when records were first required. In addition, Michigan Department of Public Health regulations require potable wells to be cased to 25 feet BLS (Rule 818). Personnel from the City of Flint Water Services state that hookup to City water is mandatory within City limits.

Figure 2 shows the location of the soil borings and temporary wells installed on the Property during this investigation.

2.3.4 Hydrology

Historically, stormwater runoff was collected in catch basins from the parking areas and roof drains and was transferred by storm sewer lines through stormwater outfalls to the Flint River. According to Facility personnel, previous operations involved the collection of stormwater runoff from the western portion of the roof and other areas in which oil and other contaminants accumulated. This stormwater was transferred by a separate industrial process water sewer system to the industrial waste water pre-treatment plant.

2.3.5 Surface Water

North of the property, the Flint River is controlled and contained within a concrete trench that was constructed in 1966 and 1967 by the United States Army Corps of Engineers. Schwartz Creek lies to the east and south (approximately 800 feet) of the Property and is a tributary to the Flint River.

2.3.6 Underground Utilities

According to site plans reviewed by BBL personnel during the Phase II ESI field investigation, the only underground utilities beneath the Property are storm sewer lines, waste water lines, and process sewer lines. The lines are located approximately 8 feet BLS and are above the water table. Because the lines are above the water table, it is unlikely that they will act as conduits for the subsurface contamination. Locations of underground utility lines are shown on Figure 3.

2.4 Phase I ESA Findings

A Phase I ESA was completed by BBL at the request of GM - Legal Counsel in June 1997. The Phase I ESA report included a description of the scope of work to be performed, a Property description, public records review, and a discussion of environmental conditions. The following are the PAOCs (potential area of environmental concern) that were identified during the Phase I ESA as requiring further investigation:

- PAOC 1 - The Electrical Substation;
- PAOC 2 - Stormwater Pump and Sump in North Storage Area;
- PAOC 3 - Gravel Area, Northwest Side of Building;
- PAOC 4 - Fire Protection Trench Excavation Area; and
- PAOC 5 - Former Trichloroethylene Degreasing Unit and Sump.

The locations of these PAOCs are illustrated on Figure 2. The Phase I ESA report recommended developing and implementing a Phase II ESI sampling and analysis plan to determine whether a documented release had occurred at levels that could pose an unacceptable risk to human health or the environment. The sampling and analysis plan is summarized in Table 2-1.

2.4.1 PAOC #1 - The Electrical Substation

2.4.1.1 Area Background History

The electrical substation (pump power room) contained polychlorinated biphenyl (PCB) transformers. The transformers were labeled and there was no evidence of leakage from the PCB transformers. The floor was sealed to contain possible spills or leaks and appeared competent. The room has two doors that open to stairs leading north onto a gravel area. Oil puddles were observed on the floor at the base of the stairs leading into the power room. The power room is approximately 3 feet below average plant grade. Plant personnel explained that "minimal amounts" of oil occasionally overflowed from the sumps associated with the exhaust forge presses area to the pervious gravel area.

On the inside of the southern wall, at and below the normal plant grade, oil was observed seeping through cracks in the wall. Because there is known evidence of oil below the floor to the south of the pump power room (where the welding systems were located), this area was investigated further.

2.4.1.2 Contaminants of Concern

Because oils and petroleum products had been observed in this area, semivolatile organic compounds (SVOC) are the contaminants of concern. Both soil and groundwater samples were analyzed for these constituents.

2.4.2 PAOC #2 - Stormwater Pump and Sump in North Storage Area

2.4.2.1 Background History

This pump and sump system was designed to collect overland runoff in the north storage area and pump this water to the pollution wastewater system. On May 14, 1993, a Michigan Department of Natural Resources (MDNR) "report of oil, salt, or polluting material losses" form was filed. The form indicted that the stormwater pump in the north storage area became uncoupled and approximately 50-100 gallons of oil overflowed the trench at the northeast corner of the area and flowed onto Stevenson Street. The form indicated the oil also flowed onto the railroad tracks and ran east along the tracks (along natural drainage paths to the north and east) a distance of 75 to 100 feet.

During BBL's property walk through in 1993, it was discovered that the pump in the sump failed and a small amount of oil was noticed overflowing onto Stevenson Street.

Because oil was released to a pervious (gravel) area along the railroad tracks, there exists the potential for oil to have permeated to the underlying soil and groundwater.

2.4.2.2 Contaminants of Concern

Because hydraulic oil had been spilled in this area, SVOC are the contaminants of concern. Both soil and groundwater samples were analyzed for these constituents.

2.4.3 PAOC #3 - Gravel Area, Northwest Side of Building

2.4.3.1 Area Background History

The stairs leading down to the gravel area were heavily stained with oils. Rain water on the stairs also exhibited a petroleum sheen. Another set of stairs leading from the power room also exhibited oil staining. Interviews with Property personnel indicated the oil was probably dragged out by employee traffic. BBL observed oil staining throughout the area. As noted in Section 2.4.1.1, the sumps located in the exhaust forge presses area have reportedly overflowed in the past.

2.4.3.2 Contaminants of Concern

Because oil staining had been observed in this area, SVOC are the contaminants of concern. Both soil and groundwater samples were analyzed for these constituents.

2.4.4 PAOC #4 - Fire Protection Trench Excavation Area

2.4.4.1 Area Background History

On November 26, 1996, during trench excavation activities for a fire protection system in Building 9, an oil-like substance was observed seeping into the trench at approximately five feet below land surface (bls) in the vicinity of Column B-9.

2.4.4.2 Contaminants of Concern

Because oil or petroleum-based products from an unknown source had been observed in this area, SVOC and metals are the contaminants of concern. Both soil and groundwater samples were analyzed for these constituents.

2.4.5 PAOC #5 - Former Trichloroethylene Degreasing Unit and Sump

2.4.5.1 Area Background History

On June 7, 1991, a spill of trichloroethylene (TCE) occurred in the area of the former TCE degreasing unit. The TCE was used as a vapor degreasing solvent in the former degreasing area (Figure 3). The file review indicated that the TCE spill entered the wastewater treatment system and Property personnel notified the City of Flint. The wastewater treatment system was reportedly self contained. The sump was pumped out periodically and that waste was disposed of off site. However, TCE was detected in groundwater samples collected 150 feet to the north, which is between the former degreasing unit and the Flint River. The samples were collected as part of underground storage tank (UST) removal activities. The source of the defected TCE is unknown. To determine whether the TCE

was migrating from a source area on the Building 9 property, BBL proposed sampling groundwater from temporary wells installed along the northern property boundary, between the former degreasing unit and the monitoring well in which TCE was detected.

2.4.5.2 Contaminants of Concern

Volatile organic halocarbons (VOH) are the contaminants of concern. Groundwater samples were analyzed for these constituents. Soil samples were not collected because the sampling locations were not in the suspected source area.

Section 3

BLASLAND, BOUCK & LEE, INC.
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3. Technical Approach

3.1 Overview

The Phase II field investigation was performed in accordance with the SAP and the site-specific Quality Assurance Project Plan (QAPP) developed for Flint West investigations. Soil borings and temporary monitoring wells were placed in the areas most likely to have been sources or discharge points of contamination. Sample locations are shown on Figure 2.

3.2 Hydraulic Probe Investigation

A hydraulic probe was used to obtain soil samples for field screening and laboratory analysis. Samples were collected continuously in 2-foot intervals from the surface to the water table (ranging from 12 to 20 feet), with an additional sample collected from the 0 to 6-inch interval. The soil samples were obtained using four-foot hollow stainless steel core barrels that were fitted with disposable acetate liners on the inside. A new liner was used for every four feet of soil sampled and core barrels were decontaminated between use. Field work entailed the following:

- Mobilized to site and coordinated site access and control.
- Determined soil boring locations and coordinated concrete coring operations.
- Calibrated the Toxic Vapor Analyzer 1000 (TVA-1000).
- Conducted health and safety meetings.
- Performed soil borings to the water table with a split spoon sampler.
- Described soils according to Burmister (1979) and using the Unified Soil Classification System (USCS).
- Screened soil samples at 2-foot intervals to the water table with a TVA-1000 to detect volatile organic compound constituents and to augment visual observations.
- Collected soil samples for laboratory analysis.
- Decontaminated equipment prior to, during, and after boring and sampling tasks at each boring/sampling point.
- Installed temporary well points, purged, and collected groundwater samples.
- Properly abandoned borings with bentonite and grout.

Soil boring logs are included in Appendix A.

3.2.1 Soil Screening

Two glass jars from each interval were half filled with soil, covered with aluminum foil, and placed in the pump house to warm, allowing organic vapors to accumulate in the headspace. The headspace gas was subsequently sampled by inserting the TVA-1000 probe through the foil. One jar from each interval was sampled with a charcoal filter assembly attached to the probe (to determine the naturally occurring component) and one jar was sampled without a filter. The difference in measured organic vapor content between the two samples (net hydrocarbon vapor concentration) is attributed to non-naturally occurring sources.

A soil sample from the 0-6-inch interval was routinely collected for laboratory analysis because potential impacts were generally believed to have been from the surface. As the boring progressed, additional soil samples were collected in laboratory jars when field screening indicated that deeper intervals were more highly impacted. If field

screening data was not conclusive, a second sample was collected for laboratory analysis from the interval immediately above the water table.

3.2.2 Laboratory Sample Collection

Soil samples were selected for laboratory analysis based on visual observations and TVA screening, as described in Section 3.2.1, with a minimum of two samples per boring. The samples were placed on ice in coolers prior to shipping to Brighton Analytical Laboratories (Brighton). Soil samples were analyzed by the appropriate laboratory analytical methods described in Table 2-1, and in Sections 3.7.1.2, 3.7.2.2, 3.7.3.2, 3.7.4.2 and 3.7.5.2 of this document, taking into consideration target method limits listed in Michigan Department of Environmental Quality's (MDEQ) Operational Memorandum #6, Revision 4 (OM #6). The laboratory analytical data were then compared to the criteria discussed in Section 4.0 of this report.

3.3 Groundwater Investigation

Groundwater samples were collected by re-entering the soil boring with the hydraulic probe equipped with a well screen. The sleeve over the well screen was retracted and, prior to sample collection, the temporary well was developed with a peristaltic pump until the water ran clear.

3.3.1 Laboratory Sample Collection

Groundwater samples were collected for laboratory analysis with a peristaltic pump. The groundwater samples for metals analyses were separated into two aliquots; one was filtered in the field through a 1.0 micron filter (dissolved metals), and one was left unfiltered (total metals). A 1-micron filter was considered to be a reasonable choice for discriminating between suspended and dissolved particulate matter, as discussed in Section 3.3.1.1.

The pH of samples being analyzed for metals was checked in the field. If the pH was greater than 2, 10 percent nitric acid solution was added to adjust the pH accordingly. The samples were placed on ice in coolers prior to shipping to the laboratory. Once the coolers were packed, they were sealed with packing tape and a custody seal was placed across the lid of the cooler to indicate whether tampering or substitution occurred en route to the laboratory.

Laboratory chain-of-custody (COC) forms were used to record the samples collected for each sampling event. The COC lists the sample collection location, the medium sampled, the date and time of sampling, and the parameters for analysis. The COC also records the personnel who have handled the samples from the point of origin to final disposition.

Groundwater samples were analyzed by appropriate laboratory analytical methods described in Table 2-1, and in Sections 3.7.1.2, 3.7.2.2, 3.7.3.2, 3.7.4.2 and 3.7.5.2 of this document. The choice of laboratory analytical methods considered the target method detection limits listed in MDEQ OM #6.

3.3.1.1 Use of Field-Filter Samples in Determining Metals Concentrations in Groundwater

Historically, contaminant concentrations in groundwater venting to surface water from unfiltered samples must be compared to GSI criteria. However, monitoring wells that are completed in materials of low hydraulic conductivity

or with a high clay content are difficult to properly develop, and it is equally difficult to obtain a water sample that is free of sediment. When water flows within unconsolidated sediments, the majority of particulates settle out because of the tortuosity of the flow path around the intergranular porosity and gravitational effects. Although substantial research has documented that colloidal particles can travel notable distances in unconsolidated formations (Gschwend and Reynolds, 1987; Eicholtz et al, 1982; Enfield and Bengtsson 1988), many researchers conclude that sediment produced from monitor wells in unconsolidated formations is due to sloughing of particulate material from the borehole under the turbulent flow conditions induced by well development and pumping, and only minimal colloidal matter in groundwater samples is from natural groundwater flow. In a Superfund Ground Water Issue Paper, Puls and Barcelona (1989) recommended using a 0.1-micron filter when collecting samples for estimates of the dissolved fraction; for estimates of contaminant mobility, filters with a pore size greater than or equal to 2 microns should be used. In practice, 0.45-micron filters are commonly used to balance between the objectives of isolating dissolved constituents and permitting reasonable use in the field. Hem (1989) concluded that there is good evidence that particulate metal hydroxides exist in most surface streams in the form of particulates smaller than 0.45 microns. Further, MDEQ toxicologist Chris Flaga stated that data from groundwater samples obtained using a low-flow pump should be comparable to that from groundwater samples field-filtered using a 0.45-micron filter. MDEQ toxicologist Jeff Crum provided formulae for determining GSI values for comparison to groundwater samples collected using a 0.45-micron filter. Based on these discussions, and to be a little more conservative, BBL used 1-micron filters for collecting groundwater samples at Building 9 during the Phase II ESI (in addition to collecting unfiltered samples). Because low-flow pumps were not used when sampling monitoring wells at Building 9, data from field-filtered samples were compared to GSI criteria.

3.4 Quality Assurance/Quality Control

A site-specific Quality Assurance Project Plan (QAPP) was developed and integrated into the site-specific project plan to ensure that appropriate data collection and analysis procedures were implemented, resulting in data of an acceptable accuracy and precision. The QAPP identifies data quality objectives (DQO) appropriate for the data use and the field and laboratory data collection and analysis procedures required to generate data meeting the site-specific DQO.

QA/QC samples to determine the accuracy and precision of field sampling methods were collected and analyzed as follows:

- Two equipment rinse blanks for the ten Michigan metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, silver, selenium, and zinc), two for SVOCs, and one for VOCs. To achieve the target method detection limits specified in OM #6, EPA Method 200.8 was used to analyze for the metals except mercury, and EPA Methods 245.1, 8260, and 625 were used to analyze for mercury, VOCs, and SVOCs, respectively.
- One duplicate for the ten Michigan metals, three for SVOC, and one for VOC. To achieve target method detection limits specified in OM #6, EPA Method 6020 was used to analyze for all metals except mercury, and EPA Methods 7471, 8260, and 8270 were used to analyze for mercury, VOCs, and SVOCs, respectively.
- One trip blank for VOCs. To achieve target method detection limits specified in OM #6, EPA Method 8260 was used to analyze for VOCs.

QA/QC procedures and reporting requirements for laboratory analyses are specified in the Flint West QAPP developed by BBL for projects at Flint West. Laboratory data validation procedures for this project were developed in accordance with BBL's Quality Assurance Plan for environmental data collection and analysis, and

followed practices specified in "Laboratory Data Validation Functional Guidelines," "Contract Laboratory Program National Functional Guidelines for Organic Data Review," (USEPA 1993), and "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," (EPA 1994). The objectives of the data validation procedures were to review the field and laboratory data, note deviances from the procedures and limits defined in the QAPP, and discuss the effects of these deviances on the data reported.

3.5 Health and Safety Plan

A Health and Safety Plan (HASP) was prepared to ensure that field personnel were adequately protected from injury due to physical hazards and exposure to hazardous substances above acceptable levels. The HASP was prepared in accordance with Title 29 of the Code of Federal Regulations (CFR) 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER). Personnel entering the Property as part of the Phase II ESI were required to read the HASP and sign the HASP sign-off sheet. Air monitoring was conducted to evaluate potential exposure levels in accordance with procedures described in the HASP.

3.6 Mobilization and Work Schedule

The BBL field team and Superior Environmental, the drilling subcontractor, mobilized to the Property on Monday, March 24, 1997. Each day, prior to commencing work, a health and safety meeting was held, and the field instruments were calibrated in accordance with procedures described in the QAPP. Field work was completed on March 26, 1997.

3.7 Field Investigation

The field investigation focused in the five PAOCs identified in the Phase I ESA Report and shown on Figure 2 of this report.

3.7.1 PAOC #1 - The Electrical Substation

3.7.1.1 Field Screening

Two soil-boring locations (SB-P9-1-1 and SB-P9-1-2) were chosen to sample the subsurface south of the Electrical Substation. Samples were collected continuously in two-foot intervals to the water table and screened visually and with the TVA-1000.

3.7.1.2 Laboratory Analysis Rationale

Four soil samples were collected from soil borings SB-P9-1-1, and SB-P9-1-2 for laboratory analysis based on screening results. Soil samples were analyzed for SVOC by EPA Method 8270. During preparation for the Phase II field effort, additional consideration was given to the potential for metals to be present in the possible LNAPL impacts. Consequently, one sample from SB-P9-1-1 was also analyzed for the 10 Michigan metals by EPA Method 6020 for all metals except mercury, which was analyzed using EPA Method 7471.

One groundwater sample was collected and analyzed for SVOC by EPA Method 625 from temporary monitoring well TW-P9-1-1, installed in the soil boring location of SB-P9-1-1.

3.7.2 PAOC #2 - Stormwater Pump and Sump in North Storage Area

3.7.2.1 Field Screening

Three soil-boring locations (SB-P9-2-1 through SB-P9-2-3) were chosen to sample the soil beneath the Stormwater Pump and Sump in North Storage Area. Samples were collected continuously in two-foot intervals to the water table and screened visually and with the TVA-1000.

3.7.2.2 Laboratory Analysis Rationale

Six soil samples were collected from soil borings SB-P9-2-1, SB-P9-2-2, and SB-P9-2-3 for laboratory analysis. The soil samples were analyzed for SVOC by EPA Method 8270. During preparation for the Phase II field effort, additional consideration was given to the potential for metals to be present in the possible LNAPL impacts. Consequently, one sample from SB-P9-2-3 was also analyzed for the 10 Michigan metals by EPA Method 6020 for the metals except mercury, which was analyzed using EPA Method 7471.

One groundwater sample was collected and analyzed for SVOC by EPA Method 625 from temporary monitoring well TW-P9-2-3, installed in the soil boring location of SB-P9-2-3.

3.7.3 PAOC #3 - Gravel Area, Northwest Side of Building

3.7.3.1 Field Screening

Two soil-boring locations (SB-P9-3-1 and SB-P9-3-2) were chosen to sample the soil beneath the gravel area on the northwest side of the building. Samples were collected continuously in two-foot intervals to the water table and screened visually and with the TVA-1000.

3.7.3.2 Laboratory Analysis Rationale

Four soil samples were collected from soil borings SB-P9-3-1 and SB-P9-3-2 for laboratory analysis. The soil samples were analyzed for SVOC by EPA Method 8270. During preparation for the Phase II field effort, additional consideration was given to the potential for metals to be present in the possible LNAPL impacts. Consequently, one sample from SB-P9-3-1 was also analyzed for the 10 Michigan metals by EPA Method 6020 for all metals except mercury, which was analyzed using EPA Method 7471. An additional sample from SB-P9-3-2 was analyzed for VOC using EPA Method 8260 because solvent odors were noted during boring installation.

One groundwater sample was collected and analyzed for SVOC by EPA Method 625 and VOC by EPA Method 8260 (because of the solvent odors) from temporary monitoring well TW-P9-3-2, installed in the soil boring location of SB-P9-3-2.

3.7.4 PAOC #4 - Fire Protection Trench Excavation Area

3.7.4.1 Field Screening

Two soil-boring locations (SB-P9-4-1 and SB-P9-4-2) were chosen to sample the soil in the vicinity of the Fire Protection Trench Excavation. Samples were collected continuously in two-foot intervals to the water table and screened visually and with the TVA-1000.

3.7.4.2 Laboratory Analysis Rationale

Four soil samples were collected from soil borings SB-P9-4-1 and SB-P9-4-2 for laboratory analysis. The soil samples were analyzed for SVOC by EPA Method 8270 and for the 10 Michigan metals by EPA Method 6020 for all metals except mercury, which was analyzed using EPA Method 7471.

Groundwater samples were collected and analyzed for SVOC by EPA Method 625 from temporary monitoring wells TW-P9-4-1 and TW-P9-4-2 (installed in soil boring locations SB-P9-4-1 AND SB-P9-4-2, respectively). Samples from TW-P9-4-1 and TW-P9-4-2 were also analyzed for the 10 Michigan metals by EPA Method 200.8 for all metals except mercury, which was analyzed using EPA Method 245.1.

3.7.5 PAOC 5 - Former Trichloroethylene Degreasing Unit and Sump

3.7.5.1 Field Screening

Three soil-boring locations at the north property boundary (SB-P9-5-1, SB-P9-5-2, and SB-P9-5-3) were chosen to screen soils hydraulically downgradient from the Former Trichloroethylene Degreasing Unit and Sump. Samples were collected continuously in two-foot intervals to the water table and screened visually and with the TVA-1000.

3.7.5.2 Laboratory Analysis Rationale

Although collection of soil samples was not originally planned at this PAOC, soil staining and odors were observed during boring performance. Therefore a soil sample was collected from SB-P9-5-1 for analysis of VOC and SVOC content by EPA Methods 8260 and 8270, respectively.

One groundwater sample was collected and analyzed for SVOC by EPA Method 625 from temporary monitoring well TW-P9-5-1 installed in the boring location of SB-P9-5-1 because a sheen was observed in the soil samples. One groundwater sample was collected and analyzed for SVOC by EPA Method 8260 from temporary monitoring well TW-P9-5-2 installed in the boring location of SB-P9-5-2 as specified in the SAP.

3.8 Health and Safety Monitoring

Investigation activities conducted during the Phase II ESI were performed in accordance with BBL's site-specific HASP. The HASP was prepared in accordance with 29 CFR 1910.120 to identify the health and safety procedures, methods, and requirements for activities performed at Flint West.

Personal protective equipment (PPE) and engineering mechanisms were used to reduce direct contact exposure. An exposure monitoring program was implemented and conducted throughout the Property investigation. The ambient levels of total organic vapors were measured by using a TVA-1000. No levels of constituents were detected above the action levels outlined in the HASP.

Section 4

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4. Summary of Results

4.1 Overview

This section summarizes the results of field screening and laboratory analyses. Copies of the original laboratory reports and COC records are included in Appendix B.

4.2 Applicable Regulatory Standards

The generic industrial and commercial cleanup criteria contained in OM#14 are designed to be used as generic cleanup criteria for sites that can be appropriately and completely determined to maintain the land-use contained in the document. Current and future land use at Flint West fits the generic criteria established for the industrial and commercial subcategory II exposure scenario, contained in OM#14; therefore, the OM#14 criteria were used to evaluate PAOCs at the property. The appropriate comparison values for analytical data have been determined based on an analysis of the relevant exposure pathways, as discussed in the following sections.

If analytical data indicate that concentrations of constituents are below OM #14 criteria, the PAOC in question requires no further investigation and no longer constitutes a PAOC. If levels are above appropriate comparison values, the PAOC requires either further investigation to determine the areal extent of contaminants above generic risk-based levels, or development of site-specific criteria.

4.2.1 Potential Exposure Pathways for Soil

Exposure pathways to be considered for soil include direct contact (dermal and ingestion), inhalation of fugitive dust, inhalation of volatile emissions, surface runoff and erosion, inhalation of particulate soils in the upper six-inches of the soil column, and migration to groundwater.

The residential and some subcategories of commercial exposure scenarios assume that children are ingesting the soil. However, the Property is expected to remain industrial or commercial subcategory II, III, or IV land use so, the ingestion pathway for soil can be eliminated.

Mobilization to potable groundwater is also a potential ingestion pathway for soil contamination, but because groundwater quality was directly evaluated by analysis of groundwater samples collected in each PAOC, comparison of soil data to soil water partitioning (SWP) criteria was not necessary. Further, as discussed in Section 2.2.3, groundwater in the surficial unit is not a potable water source either on the property or off-site; therefore soil protective-of-groundwater criteria are not applicable at Flint West. Soil protective-of-surface water criteria may be applicable, if groundwater venting to surface water exceeds groundwater-surface water interface (GSI) criteria and groundwater remediation is not implemented.

Because impacted soil at the property is covered with either asphalt or concrete, inhalation of fugitive dust, surface runoff, and erosion can be eliminated as complete exposure pathways at this time. However, soil data have been compared to draft volatile soil inhalation criteria (VSIC) and particulate soil inhalation criteria (PSIC) to determine the risk should the cover be removed at some time in the future.

Exposure of Property workers to soil impacts by dermal contact is a potentially complete pathway. Soil concentrations at the Property were compared to direct contact values (DCVs).

4.2.2 Potential Exposure Pathways for Groundwater

Exposure pathways to be considered for groundwater include direct contact (dermal and ingestion) and discharge to surface water. As discussed in Section 2.2.3, the surficial unit is not a useable aquifer. Therefore, the ingestion pathway is not complete, and health-based and aesthetic drinking water criteria are not applicable to Property groundwater.

Dermal contact with groundwater by utility workers has been considered in developing the Utility Worker groundwater contact criteria (GCC) recently published by MDEQ in an addendum to OM #14. Because this is a potential exposure pathway at Flint West, groundwater concentrations have been compared to these values.

Groundwater venting to surface water is a viable pathway to consider for groundwater. If the groundwater samples collected on-site contain contaminant concentrations above GSI criteria, additional groundwater samples can be collected from monitoring wells closer to or adjacent to the Flint River to determine if concentrations meet groundwater-surface-water interface (GSI) values.

4.3 PAOC #1 -The Electrical Substation

4.3.1 Field Screening Results

Analysis of organic vapor content in the headspace of soil samples collected in the Electrical Substation area was performed on March 24, 1997. Organic vapors were present in the samples at levels less than ten parts per million (ppm). The field screening data are summarized in Table 4-1.

4.3.2 Laboratory Analytical Data

4.3.2.1 Unsaturated Soil

SVOC concentrations in soil from the Electrical Substation area are below laboratory detection limits (BDL). Table 4-2 is a summary of the organic compounds detected in soil. Metals concentrations in soil from the Electrical Substation area are below MDEQ Soil Inhalation Criteria (SIC) and DCVs. Therefore, this area is no longer considered a PAOC for soil. Table 4-3 is a summary of the analytical data for metals in soil.

4.3.2.2 Groundwater

Groundwater was sampled from temporary well TW-P9-1-1 for SVOC analysis on March 24, 1997. Concentrations of the SVOC compounds are BDL in the groundwater from PAOC #1. Therefore, this area is no longer considered a PAOC for groundwater. Table 4-4 is a summary of organic compounds in groundwater.

4.4 PAOC #2 - Stormwater Pump and Sump in North Storage Area

4.4.1 Field Screening Results

Analysis of organic vapor content in the headspace of soil samples collected in the Stormwater Sump and Pump area was performed on March 25, 1997. With the exception of the sample from SB-P9-2-3 [12-14 feet below land surface (bls)], which had a net hydrocarbon vapor concentration of 36.8 ppm, organic vapors were present in the samples at levels less than ten ppm. The field screening data are summarized in Table 4-1.

4.4.2 Laboratory Analytical Data

4.4.2.1 Unsaturated Soil

SVOC concentrations in soil from the Stormwater Sump and Pump area were below laboratory detection limits (BDL). Table 4-2 is a summary of the organic compounds detected in soil. Metals concentrations in soil from the Stormwater Sump and Pump area are below MDEQ SIC and DCVs. Therefore, this area is no longer considered a PAOC for soil. Table 4-3 is a summary of the analytical data for metals in soil.

4.4.2.2 Groundwater

Groundwater was sampled from temporary well TW-P9-2-3 for SVOC analysis on March 24, 1997. Concentrations of the SVOC compounds were BDL in the groundwater from PAOC #2. Therefore, this area is no longer considered a PAOC for groundwater. Table 4-4 is a summary of organic compounds in groundwater.

4.5 PAOC #3 - Gravel Area, Northwest Side of Building

4.5.1 Field Screening Results

Analysis of organic vapor content in the headspace of soil samples collected in the Gravel Area was performed on March 25, 1997. Organic vapors were present in the samples at levels less than ten ppm. The field screening data are summarized in Table 4-1.

4.5.2 Laboratory Analytical Data

4.5.2.1 Unsaturated Soil

SVOC concentrations in soil from the Gravel area were below laboratory detection limits (BDL) in all samples except those from SB-P9-3-1 (0.5-2 feet bls). SVOC concentrations ranged from 520 $\mu\text{g/kg}$ of fluorene to 8,000 $\mu\text{g/kg}$ of chrysene. However, these concentrations were below SIC and DCVs. Because solvent odors were noted in the soil in this area, samples from the 14-16 foot BLS interval in SB-P9-3-1 and the 10-12 foot BLS interval in SB-P9-3-2 were collected for VOC analysis. Cis-1,2-dichloroethene and trichloroethene were detected in SB-P9-3-1 at 180 and 670 $\mu\text{g/kg}$, respectively. However, these concentrations are below SIC and DCVs. Table 4-2 is a summary of the organic compounds in soil. Metals concentrations in soil from the Gravel area were also below MDEQ SIC and DCVs. Therefore, this area is no longer considered a PAOC for soil. Table 4-3 is a summary of the analytical data for metals in soil.

4.5.2.2 Groundwater

Groundwater was sampled from temporary well TW-P9-3-2 for VOC and SVOC analysis on March 25, 1997. Concentrations of the SVOC compounds were BDL. Cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride were present in groundwater samples at 120, 7, 71, and 1 micrograms per liter ($\mu\text{g/L}$), respectively. These concentrations are below GCC and GSI values. Concentrations of the remaining VOC compounds were BDL. Table 4-4 is a summary of organic compounds in groundwater.

It should be noted that due to breakage in transit, analysis of VOCs could not be made from the standard 40 milliliter sampling vials. Samples used for VOC analysis were drawn from 1 liter amber bottles. This was done

to qualitatively evaluate VOC concentrations, and the VOC data should be considered fairly reliable. In order to confirm the VOC data, an additional groundwater sample from this PAOC should be analyzed for VOCs.

4.6 PAOC #4 - Fire Protection Trench Excavation

4.6.1 Field Screening Results

Analysis of organic vapor content in the headspace of soil samples collected in the Fire Protection Trench Excavation area was performed on March 26, 1997. Net hydrocarbon vapor concentrations ranged from 0 to 59.16 ppm. The field screening data are summarized in Table 4-1.

4.6.2 Laboratory Analytical Data

4.6.2.1 Unsaturated Soil

SVOC concentrations in soil from the Fire Protection Trench Excavation area ranged from BDL to 23,000 $\mu\text{g/kg}$ of phenanthrene in SB-P9-4-1, and from BDL to 18,000 $\mu\text{g/kg}$ of pyrene in SB-P9-4-2. However, the concentrations are below MDEQ SIC and DCVs. Table 4-2 is a summary of the organic compounds detected in soil. Metals concentrations in soil from the Fire Protection Trench Excavation area are also below MDEQ SIC and DCVs. Table 4-3 is a summary of the analytical data for metals in soil.

4.6.2.2 Groundwater

Groundwater was sampled from temporary well TW-P9-4-2 for SVOC analysis on March 25, 1997. Concentrations of SVOCs exceeded GSI criteria and GCC, as shown in Table 4-4. However, Building 9 is not at the GSI, and concentrations of the SVOCs should be evaluated in groundwater samples from downgradient monitoring wells between the potential source areas and the Flint River. The concentrations of SVOCs exceeding GCC and the potential presence of light non-aqueous phase liquid (LNAPL) should be investigated further.

Concentrations of dissolved arsenic, cadmium, copper, selenium, and zinc exceeded GSI values in groundwater samples collected in PAOC # 4. As stated above, Building 9 is not at the GSI, and concentrations of these chemicals should be evaluated in groundwater samples from downgradient monitoring wells between the potential source area and the Flint River. Metals concentrations in the groundwater samples did not exceed GCC. Table 4-5 is a summary of metals concentrations in groundwater.

4.7 PAOC #5 - Former Trichloroethylene Degreasing Unit and Sump

4.7.1 Field Screening Results

Analysis of organic vapor content in the headspace of soil samples collected downgradient from the Former Trichloroethylene Degreasing Unit area was performed on March 26, 1997. Net hydrocarbon vapor concentrations ranged from 0.4 to 404.6 ppm. Organic vapor concentrations greater than 5 ppm were only present in two moist samples collected near the water table, and are attributed to VOC concentrations in groundwater. The field screening data are summarized in Table 4-1.

4.7.2 Laboratory Analytical Data

4.7.2.1 Unsaturated Soil

Although collection of soil samples for laboratory analysis was not originally planned in PAOC #5, soil samples were collected from SB-P9-5-1 for SVOC and VOC analysis because a sheen was noted on the soil during boring installation. However, VOC and SVOC concentrations in soil from the Former Trichloroethylene Degreasing Unit area were BDL. Therefore, this area is no longer considered a PAOC for soil. Table 4-2 is a summary of the organic compounds in soil.

4.7.2.2 Groundwater

Groundwater was sampled from temporary well TW-P9-5-1 for SVOC analysis and from TW-P9-5-2 for VOC analysis on March 26, 1997. Concentrations of the SVOC compounds were BDL. Cis-1,2-dichloroethene was detected at 1 $\mu\text{g/L}$. The remaining VOC concentrations were BDL. Table 4-4 is a summary of organic compounds in groundwater.

It should be noted that due to breakage in transit, analysis of VOCs could not be made from the standard 40 milliliter sampling vials. Samples used for VOC analysis were drawn from 1 liter amber bottles. This was done to qualitatively evaluate VOC concentrations, and the VOC data should be considered fairly reliable. In order to confirm the VOC data, an additional groundwater samples from this PAOC should be analyzed for VOCs.

4.8 Quality Assurance/Quality Control

4.8.1 Field Screening Data

The Phase II ESI Work Plan outlined the analytical reporting levels and data quality objectives proposed for the Phase II ESI. Field screening techniques used for the Phase II ESI consisted of TVA-1000 Toxic Vapor Analyzer. The field screening instruments were properly calibrated in accordance with accepted practices and manufacturer's calibration procedures. The calibration data was recorded in calibration logs associated with each instrument. A typical analysis sequence consisted of the following:

- a calibration check sample (to verify the calibration);
- a blank sample (to verify instrument integrity);
- project samples (one to twenty); and
- duplicate samples.

In addition, if a concentrated sample was analyzed, a blank sample would be analyzed afterwards to verify instrument integrity.

QA/QC data for the field screening instruments were reported as acceptable.

4.8.2 Lab Data

As stipulated in the project-specific QAPP, the data was validated by the QA Officer following EPA Functional Data Validation Guidelines and the appropriate data quality objectives (DQO) and analytical data levels. Sampling procedures were determined to be complete and acceptable, and results of laboratory QA/QC samples were within acceptable limits. Data validation reports indicated that the laboratory data can be used for quantitative purposes

in almost all cases. OM #6 target method detection limits were achieved except in cases where dilution of the sample was necessary due to elevated concentrations of some constituents. Data validation reports are included in Appendix B with the laboratory reports.

Detection levels stipulated in OM #6 were met.

Section 5

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5. Conclusions and Recommendations

BBL performed a Phase II ESI at former Building 9 of the Delphi-Flint West Facility from March 24 to March 26, 1997. Soil borings and temporary wells were installed at five PAOCs previously identified in a Phase I ESA (BBL, 1997), and groundwater and soil samples were collected for analysis of VOC, SVOC, and metals. Conclusions and recommendations for each PAOC based on the results of the investigation are discussed in the following sections.

5.1 PAOC #1 - The Electrical Substation

Because LNAPL had been observed seeping through a floor seam in this area, soil and groundwater samples collected in this area were analyzed for SVOC, and soil samples were analyzed for metals. SVOC were not detected in soil or groundwater, and the metals concentrations in the soil were below SIC and DCVs, the appropriate regulatory comparison values. Therefore, this area is no longer considered a PAOC for soil or groundwater.

5.2 PAOC #2 - Stormwater Pump and Sump in North Storage Area

Because an oil spill had been reported in this area, soil and groundwater samples collected in this area were analyzed for SVOC, and soil samples were analyzed for metals. SVOC were not detected in soil or groundwater, and the metals concentrations in the soil were below SIC and DCVs. Therefore, this area is no longer considered a PAOC for soil or groundwater.

5.3 PAOC #3 - Gravel Area, Northwest Side of Building

Because oil staining had been observed on stairs leading to the Gravel Area, soil and groundwater samples collected in this area were analyzed for SVOC, and soil samples were analyzed for metals. SVOC were not detected above appropriate regulatory comparison values in soil or groundwater, and the metals concentrations in the soil were below SIC and DCVs.

Because an obvious solvent odor had been noted in this area during soil boring installation, a soil sample and groundwater sample were collected for VOC analysis. VOC were not detected above appropriate regulatory comparison values in soil. Groundwater samples contained Cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride at 120, 7, 71, and 1 $\mu\text{g/L}$, respectively. These concentrations are below GCC and GSI values. Concentrations of the remaining VOC compounds were BDL. However, a problem with the laboratory containers yielded potentially unreliable VOC data in the groundwater. VOC concentrations should be confirmed with an additional temporary well. If the VOC concentrations are again found to be below GSI criteria and GCC, then this area can be eliminated as a PAOC.

Also, the presence of trichloroethylene in groundwater samples suggests that releases from the former trichloroethylene degreasing units may have impacted the ground water, in contrast to reports that the releases were contained. An additional temporary well should be installed in the vicinity of the former degreasing units and analyzed for VOC.

5.4 PAOC #4 - Fire Protection Trench Excavation Area

Because LNAPL had been observed seeping into the Fire Trench Excavation, soil and groundwater samples collected in this area were analyzed for SVOC and metals. SVOC and metals were not detected in soil above SIC and DCVs, the appropriate regulatory comparison values.

SVOC compounds were detected above GCC and GSI values in groundwater samples in PAOC #4. Dissolved metals concentrations in groundwater samples field filtered with a 1-micron filter were also above GSI values. However, Building 9 is not at the GSI, and concentrations of these constituents should be evaluated in groundwater samples from downgradient monitoring wells between this PAOC and the Flint River. A permanent monitoring well should be installed in PAOC #4 to determine whether LNAPL is present, and groundwater should be resampled for SVOC compounds. If the presence of SVOC's above the GCC are confirmed in the groundwater, additional groundwater monitoring points should be installed to define the extent of groundwater exceeding the GCC. If additional monitoring points are installed, additional soil samples should be collected for SVOC analysis.

5.5 PAOC #5 - Former Trichloroethylene Degreasing Unit and Sump

Because there was a documented spill of TCE in the degreasing unit, and concentrations of TCE had been detected in a downgradient monitoring well, soil and groundwater samples were collected from three locations along the property boundary for soil screening and laboratory analysis of VOC content. Additional soil and groundwater samples were also collected for laboratory analysis of SVOC when a sheen was observed on soil samples during boring performance. SVOC and VOC were not detected in soil. Therefore, this area is no longer considered a PAOC for soil.

SVOC were not detected in groundwater, and only cis-1,2-dichloroethene was detected at 1 $\mu\text{g/L}$ in groundwater. However, a problem with the laboratory containers yielded potentially unreliable VOC data in the groundwater. VOC concentrations should be confirmed with an additional temporary well. Also, as noted in Section 5.3, the presence of trichloroethylene in groundwater samples from PAOC #3 suggests that releases from the former trichloroethylene degreasing units may have impacted the ground water, in contrast to reports that the releases were contained. A temporary well should be installed in the vicinity of the former degreasing units and analyzed for VOC. If the VOC concentrations are found to be below GSI criteria and GCC in the additional samples, then this area can be eliminated as a PAOC.

Section 6

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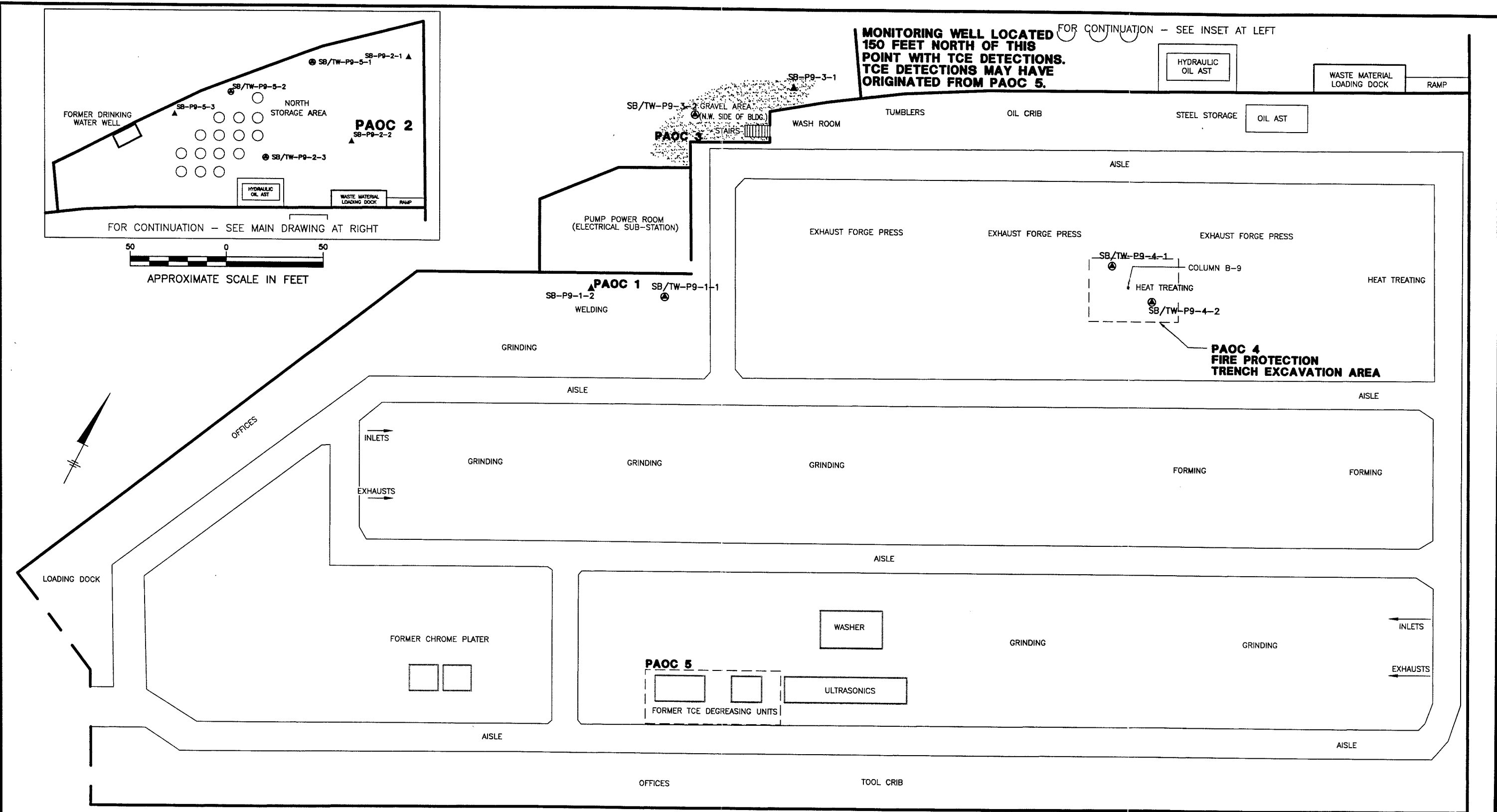
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Figures

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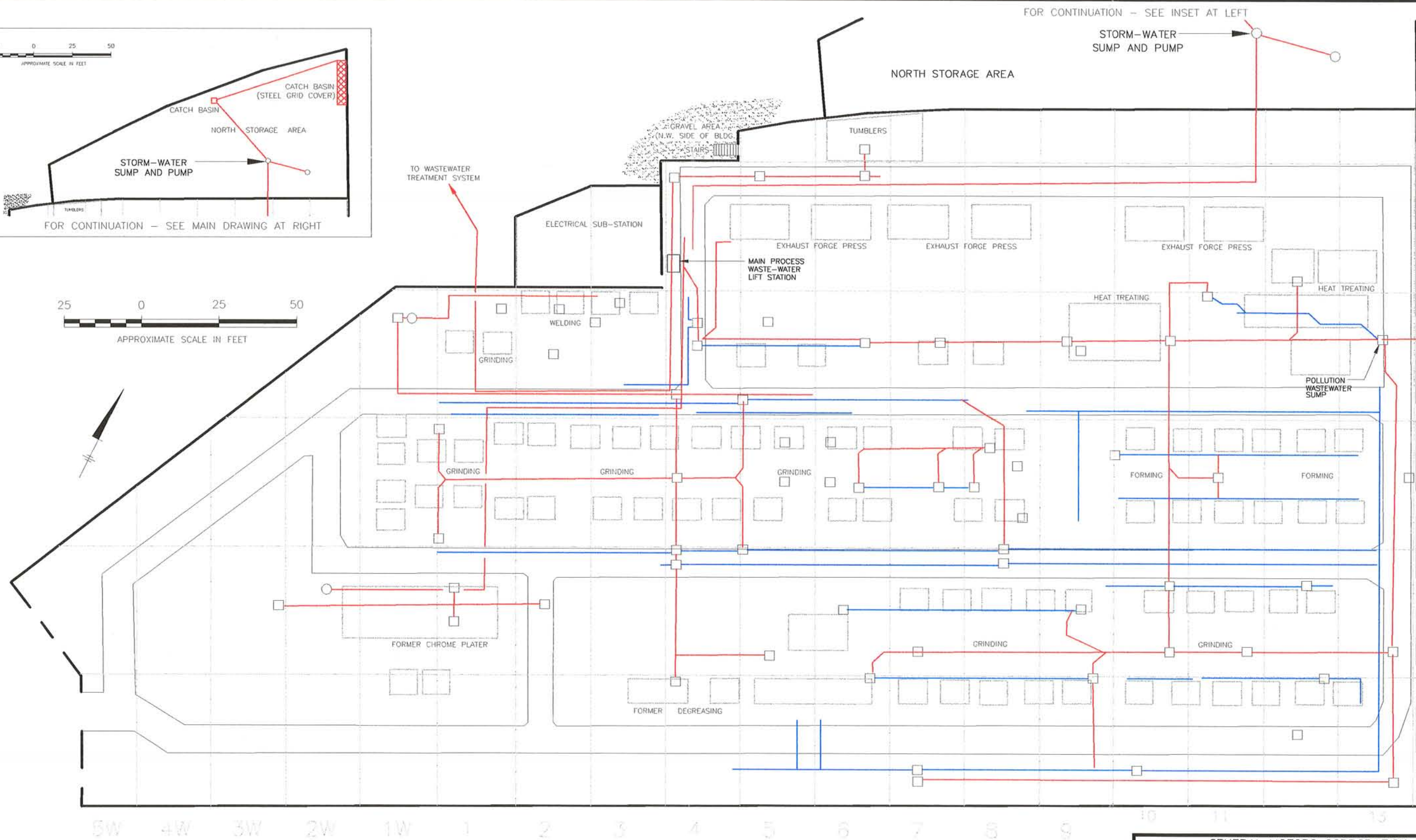
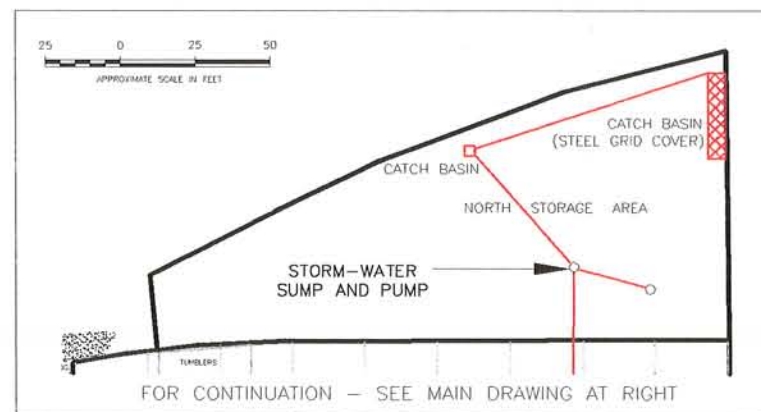
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PHASE II ENVIRONMENTAL SITE INVESTIGATION

POTENTIAL AREAS OF
ENVIRONMENTAL CONCERN
AND SAMPLE LOCATIONS

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engineers & scientists

FIGURE
2



LEGEND

- PROCESS WATER WASTE TRENCH DRAIN
- PROCESS WATER WASTE LINE
- SUMP
- PUMP
- PLANT PROCESS MACHINERY

GENERAL MOTORS CORPORATION
BUILDING 9 DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN
PHASE II ENVIRONMENTAL SITE INVESTIGATION

**WASTEWATER TREATMENT
SYSTEMS LAYOUT**

BBL BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
3

Tables

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TABLE 2-1
SAMPLING AND ANALYSIS SUMMARY
PHASE II ENVIRONMENTAL SITE INVESTIGATION

BUILDING 9, FLINT WEST FACILITY
FLINT, MICHIGAN

PAOC	Location	Chemicals of Concern	Field Screening Methods	Sampling Rationale And Location	Laboratory Analyses Soils	Laboratory Analyses Groundwater
1	Electrical substation on northwest corner of Building 9.	LNAPL	TVA - Soil samples collected in 2-foot intervals.	Two soil borings will be installed in the area which comprises approximately 200 sq. ft. Soil samples will be collected in 2-foot intervals from land surface to the water table. The sample from 0 to 2 feet below land surface will be divided into samples from 0 to 0.5 feet and 0.5 feet to 2 feet. Fourteen samples will be collected (seven from each boring). Up to two temporary well points will be installed with the geoprobe for collection of groundwater samples.	Two samples from each boring will be analyzed by EPA Method 8270. The 0 to 0.5 foot samples will be analyzed for each boring. The remaining sample from each boring with the highest TVA reading (or most visible hydrocarbon impacts) will also be analyzed by EPA method 8270.	If screening of soils indicate there are potential groundwater impacts, up to two groundwater samples will be analyzed by EPA Method 8270.
2	Stormwater pump and sump located in the north storage area.	LNAPL	TVA - Soil samples collected in 2-foot intervals.	Three soil borings will be installed along the areas identified where oil has leaked as a result of overflow from the northeast catch basin. Soil samples will be collected in 2-foot intervals from land surface to the water table. The sample from 0 to 2 feet below land surface will be divided into samples from 0 to 0.5 feet and 0.5 feet to 2 feet. Twenty-one samples will be collected (seven from each boring). Up to three temporary well points will be installed with the geoprobe for collection of groundwater samples.	Two samples from each boring will be analyzed by EPA Method 8270. The 0 to 0.5 foot samples will be analyzed for each boring. The remaining sample from each boring with the highest TVA reading (or most visible hydrocarbon impacts) will also be analyzed by EPA method 8270.	If screening of soils indicate there are potential groundwater impacts, up to three groundwater samples will be analyzed by EPA Method 8270.
3	Northwest side of building gravel area.	LNAPL	TVA - Soil samples collected in 2-foot intervals.	Two soil borings will be installed in the area which comprises approximately 500 sq. ft. Soil samples will be collected in 2-foot intervals from land surface to the water table. The sample from 0 to 2 feet below land surface will be divided into samples from 0 to 0.5 feet and 0.5 feet to 2 feet. Fourteen samples will be collected (seven from each boring). Up to two temporary well points will be installed with the geoprobe for collection of groundwater samples.	Two samples from each boring will be analyzed by EPA Method 8270. The 0 to 0.5 foot samples will be analyzed for each boring. The remaining sample from each boring with the highest TVA reading (or most visible hydrocarbon impacts) will also be analyzed by EPA method 8270.	If screening of soils indicate there are potential groundwater impacts, up to two groundwater samples will be analyzed by EPA Method 8270. The groundwater sample if any, will also be analyzed by EPA Method 8260, as this area is between the degreasing unit and the location downgradient where TCE was detected.
4	Fire Protection Trench Excavation	LNAPL	TVA - Soil samples collected in 2-foot intervals.	Two soil borings will be installed in the vicinity of Column B-9 (fire trench excavation). Soil samples will be collected in 2-foot intervals from land surface to the water table. The sample from 0 to 2 feet below land surface will be divided into samples from 0 to 0.5 feet and 0.5 feet to 2 feet. Fourteen samples will be collected (seven from each boring). Up to two temporary well points will be installed with the geoprobe for collection of groundwater samples.	Two samples from each boring will be analyzed by EPA Method 8270 and for the ten Michigan metals. The 0 to 0.5 foot samples will be analyzed for each boring. The remaining sample from each boring with the highest TVA reading (or most visible hydrocarbon impacts) will also be analyzed by EPA method 8270 and the 10 Michigan metals.	If screening of soils indicate there are potential groundwater impacts, up to two groundwater samples will be analyzed by EPA Method 8270 and the 10 Michigan metals. If product is encountered, a sample will be collected and analyzed by fingerprint analysis.
5	Former trichloroethylene degreasing unit and sump.	TCE	TVA - Soil samples collected in 2-foot intervals.	Three soil borings will be installed along the northern property boundary, between the degreasing and where TCE was detected in groundwater during an UST removal. Soil samples will be collected in 2-foot intervals from land surface to the water table. Up to three temporary points will be installed with the geoprobe for collection of groundwater samples.	No laboratory analysis of soil samples	If screening of soils indicate there are potential groundwater impacts, up to three groundwater samples will be analyzed by EPA Method 8260.

TABLE 4-1
ORGANIC VAPOR ANALYSIS
FIELD SCREENING RESULTS
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Sample Location	Date	Sample Interval (Feet Below grade)	Total Organic Vapor Concentration (ppm)	Methane/Ethane Vapor Concentration* (ppm)	Net Hydrocarbon Vapor Concentration (ppm)
SB-P9-1-1	03/24/97	0-0.5	4	2.1	1.9
		0.5-2	3.3	2.56	0.74
		2-4	3	2.45	0.55
		4-6	2.74	2.45	0.29
		6-8	2.8	2.52	0.28
		8-10	2.96	2.43	0.53
		10-12	2.6	2.5	0.1
		12-14	3.13	2.74	0.39
		14-16	3.33	2.56	0.77
SB-P9-1-2	03/24/97	0-0.5	2.92	2.68	0.24
		0.5-2	2.74	2.82	0
		2-4	2.8	2.65	0.15
		4-6	2.98	2.62	0.36
		6-8	2.83	2.76	0.07
		8-10	2.78	2.7	0.08
		10-12	2.96	2.68	0.28
		12-14	4.25	2.58	1.67
		14-16	6.27	2.6	3.67
SB-P9-2-1	03/25/97	0-0.5	0.6	1.17	0**
		0.5-2	9.89	1.03	8.86
		2-4	5.3	0.56	4.74
		4-6	4.31	0.49	3.82
		6-8	2.92	0.35	2.57
		8-10	0	0.42	0**
		10-12	2.52	0.56	1.96
SB-P9-2-2	03/25/97	0-0.5	3.18	1.11	2.07
		0.5-2	1.64	1.08	0.56
		2-4	2.04	1.06	0.98
		4-6	1.47	1.11	0.36
		6-8	1.46	1.15	0.31
		8-10	1.7	1.12	0.58
		10-12	1.75	1.18	0.57

Note:

* Readings taken with headspace gas filtered through charcoal

** - A net concentration of less than zero is sometimes recorded due to accuracy of the OVA or sample inhomogeneity. These values have been replaced with zero.

*** - Sample moist

TABLE 4-1
ORGANIC VAPOR ANALYSIS
FIELD SCREENING RESULTS
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Sample Location	Date	Sample Interval (Feet Below grade)	Total Organic Vapor Concentration (ppm)	Methane/Ethane Vapor Concentration* (ppm)	Net Hydrocarbon Vapor Concentration (ppm)
SB-P9-2-3	03/25/97	0-0.5	0.44	0	0.44
		0.5-2	0.46	0	0.46
		2-4	0.35	0	0.35
		4-6	0	0	0
		6-8	0.89	0	0.89
		8-10	0.74	0	0.74
		10-12	7.68	5.81	1.87
		12-14	48.71	11.92	36.79
SB-P9-3-1	03/25/97	14-16	0.1	1.78	0**
		0-0.5	0	0.44	0**
		0.5-2	1.81	1.31	0.5
		2-4	1.2	1.36	0**
		4-6	0.7	1.23	0**
		6-8	0.85	0.8	0.05
		8-10	1	0.96	0.04
		10-12	0.98	0.8	0.18
SB-P9-3-2	03/25/97	12-14	3.33	1.23	2.1
		14-16	8.85	7.96	0.89
		0-0.5	0.77	0	0.77
		0.5-2	0.72	0.44	0.28
		2-4	0.66	0.43	0.23
		4-6	5.49	0	5.49
		6-8	1.01	0.22	0.05
SB-P9-4-1	03/26/97	8-10	1.03	0.22	0.81
		10-12	1.75	0.66	1.09
		0-0.5	9.62	4.33	5.29
		0.5-2	9.1	3.03	6.07
		2-4	16.24	8.36	7.88
		4-6	47.71	24.89	22.82
		6-8	70	56.45	13.55
		8-10	90.5	90.1	0.4
		10-12	37.01	12.3	24.71
		12-14	83.56	24.72	58.84
		14-16	66.31	31.85	34.46
		16-18	38.75	80.6	0**
		18-20	42.13	19.61	22.52

Note:

* Readings taken with headspace gas filtered through charcoal

** - A net concentration of less than zero is sometimes recorded due to accuracy of the OVA or sample inhomogeneity. These values have been replaced with zero.

*** - Sample moist

TABLE 4-1
ORGANIC VAPOR ANALYSIS
FIELD SCREENING RESULTS
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Sample Location	Date	Sample Interval (Feet Below grade)	Total Organic Vapor Concentration (ppm)	Methane/Ethane Vapor Concentration* (ppm)	Net Hydrocarbon Vapor Concentration (ppm)
SB-P9-4-2	03/26/97	0-0.5	0.73	0.59	0.14
		0.5-2	6	0.5	5.5
		2-4	NS	NS	0
		4-6	28.1	1.63	26.47
		6-8	82.3	23.14	59.16
		8-10	40.66	18.96	0.4
		10-12	8.88	9.69	0**
SB-P9-5-1	03/26/97	0-0.5	1.5	0	1.5
		0.5-2	1.56	0	1.56
		2-4	1.6	0	1.6
		4-6	1.67	0	1.67
		6-8	1.64	0	1.64
		8-10	1.99	0	0.4
		10-12***	458	53.4	404.6
SB-P9-5-2	03/26/97	0-0.5	1.79	1.65	0.14
		0.5-2	1.98	1.46	0.52
		2-4	2.12	1.48	0.64
		4-6	2.02	1.38	0.64
		6-8	2.06	1.51	0.55
		8-10	1.94	1.47	0.4
		10-12***	453	71.34	381.66
SB-P9-5-3	03/26/97	0-0.5	1.88	1.44	0.44
		0.5-2	1.97	1.45	0.52
		2-4	1.91	1.41	0.5
		4-6	1.87	1.39	0.48
		6-8	1.91	1.68	0.23
		8-10	1.94	1.6	0.4
		10-12***	2.01	1.68	0.33

Note:

* Readings taken with headspace gas filtered through charcoal

** - A net concentration of less than zero is sometimes recorded due to accuracy of the OVA or sample inhomogeneity. These values have been replaced with zero.

*** - Sample moist

TABLE 4-2
SUMMARY OF LABORATORY ANALYTICAL DATA FOR SOIL
ORGANIC COMPOUNDS IN SOIL
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Parameter Detected	Units	Sample Identification					Unlimited Land Use PSIC	Infinite Source VSIC	Generic Industrial Cleanup DCV	Generic Csat
		SB-P9-1-1 (0-6")	SB-P9-1-1 (8-10')	SB-P9-1-2 (0-6")	SB-P9-1-2 (14-16')	SB-P9-2-1 (0-6')				
<i>EPA Method 8270</i>										
Acenaphthene	ug/kg	<330	<330	<330	<330	<330	7.3E+09	1.4E+08	8.1E+08	NA
Anthracene	ug/kg	<330	<330	<330	<330	<330	3.5E+10	2.3E+09	1.0E+09	NA
Benzo(a)anthracene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
Benzo(a)pyrene	ug/kg	<330	<330	<330	<330	<330	1.1E+06	1.2E+06	2.1E+04	NA
Benzo(b)fluoranthene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
Benzo(k)fluoranthene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+06	NA
Benzo(g, h, i)perylene	ug/kg	<330	<330	<330	<330	<330	4.1E+08	ID	1.6E+07	NA
Chrysene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+07	NA
Dibenzo(a, h)anthracene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+04	NA
Dibenzofuran	ug/kg	<330	<330	<330	<330	<330	ID	ID	ID	NA
Fluoranthene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	1.3E+09	5.4E+08	NA
Fluorene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	2.1E+08	5.4E+08	NA
Indeno (1,2,3)pyrene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
2-Methylnaphthalene	ug/kg	<330	<330	<330	<330	<330	ID	ID	ID	NA
Naphthalene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	2.3E+07	1.6E+08	NA
Phenanthrene	ug/kg	<330	<330	<330	<330	<330	6.9E+07	ID	1.6E+07	NA
Pyrene	ug/kg	<330	<330	<330	<330	<330	3.5E+09	1.1E+09	3.4E+08	NA
<i>EPA Method 8260</i>										
Cis-1,2-dichloroethene	ug/kg	SNA	SNA	SNA	SNA	SNA	2.7E+11	6.9E+07	8.2E+06	1.0E+06
Trichloroethene	ug/kg	SNA	SNA	SNA	SNA	SNA	1.4E+09	1.9E+05	1.6E+06	1.2E+06

Notes:

ug/kg - micrograms per kilogram
ID - Insufficient data to determine a value

NA - Not available
SNA - Sample not analyzed for this compound

Samples collected March 1997

PSIC - Particulate soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

VSIC - Volatile soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

DCV - Direct contact value; from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Csat - Soil saturation screening concentration, from "Generic Soil Saturation Screening Concentrations: Technical support Document", 1/17/97

TABLE 4-2
SUMMARY OF LABORATORY ANALYTICAL DATA FOR SOIL
ORGANIC COMPOUNDS IN SOIL
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Parameter Detected	Units	Sample Identification					Unlimited Land Use PSIC	Infinite Source VSIC	Generic Industrial Cleanup DCV	Generic Csat
		SB-P9-2-1 (6"-2')	SB-P9-2-2 (0-6")	SB-P9-2-2 (2-4')	SB-P9-2-3 (0-6")	SB-P9-2-3 (10-12')				
<i>EPA Method 8270</i>										
Acenaphthene	ug/kg	<330	<330	<330	<330	<330	7.3E+09	1.4E+08	8.1E+08	NA
Anthracene	ug/kg	<330	<330	<330	<330	<330	3.5E+10	2.3E+09	1.0E+09	NA
Benzo(a)anthracene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
Benzo(a)pyrene	ug/kg	<330	<330	<330	<330	<330	1.1E+06	1.2E+06	2.1E+04	NA
Benzo(b)fluoranthene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
Benzo(k)fluoranthene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+06	NA
Benzo(g, h, i)perylene	ug/kg	<330	<330	<330	<330	<330	4.1E+08	ID	1.6E+07	NA
Chrysene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+07	NA
Dibenzo(a, h)anthracene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+04	NA
Dibenzofuran	ug/kg	<330	<330	<330	<330	<330	ID	ID	ID	NA
Fluoranthene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	1.3E+09	5.4E+08	NA
Fluorene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	2.1E+08	5.4E+08	NA
Indeno (1,2,3)pyrene	ug/kg	<330	<330	<330	<330	<330	ID	ID	2.1E+05	NA
2-Methylnaphthalene	ug/kg	<330	<330	<330	<330	<330	ID	ID	ID	NA
Naphthalene	ug/kg	<330	<330	<330	<330	<330	4.8E+09	2.3E+07	1.6E+08	NA
Phenanthrene	ug/kg	<330	<330	<330	<330	<330	6.9E+07	ID	1.6E+07	NA
Pyrene	ug/kg	<330	<330	<330	<330	<330	3.5E+09	1.1E+09	3.4E+08	NA
<i>EPA Method 8260</i>										
Cis-1,2-dichloroethene		SNA	SNA	SNA	SNA	SNA	2.7E+11	6.9E+07	8.2E+06	1.0E+06
Trichloroethene		SNA	SNA	SNA	SNA	SNA	1.4E+09	1.9E+05	1.6E+06	1.2E+06

Notes:

ug/kg - micrograms per kilogram
ID - Insufficient data to determine a value

NA - Not available

SNA - Sample not analyzed for this compound

Samples collected March 1997

PSIC - Particulate soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

VSIC - Volatile soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

DCV - Direct contact value; from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Csat - Soil saturation screening concentration, from "Generic Soil Saturation Screening Concentrations: Technical support Document", 1/17/97

TABLE 4-2
SUMMARY OF LABORATORY ANALYTICAL DATA FOR SOIL
ORGANIC COMPOUNDS IN SOIL
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Parameter Detected	Units	Sample Identification						Unlimited Land Use PSIC	Infinite Source VSIC	Generic Industrial Cleanup DCV	Generic Csat
		SB-P9-3-1 (6"-2')	SB-P9-3-1 (14-16')	SB-P9-3-2 (6"-2')	SB-P9-3-2 (4-6')	SB-P9-3-2 (10-12')					
<i>EPA Method 8270</i>											
Acenaphthene	ug/kg	<330	<330	<330	<330	SNA		7.3E+09	1.4E+08	8.1E+08	NA
Anthracene	ug/kg	<330	<330	<330	<330	SNA		3.5E+10	2.3E+09	1.0E+09	NA
Benzo(a)anthracene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	2.1E+05	NA
Benzo(a)pyrene	ug/kg	<330	<330	<330	<330	SNA		1.1E+06	1.2E+06	2.1E+04	NA
Benzo(b)fluoranthene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	2.1E+05	NA
Benzo(k)fluoranthene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	2.1E+06	NA
Benzo(g, h, i)perylene	ug/kg	<330	<330	<330	<330	SNA		4.1E+08	ID	1.6E+07	NA
Chrysene	ug/kg	8,000	<330	<330	<330	SNA		ID	ID	2.1E+07	NA
Dibenzo(a, h)anthracene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	2.1E+04	NA
Dibenzofuran	ug/kg	<330	<330	<330	<330	SNA		ID	ID	ID	NA
Fluoranthene	ug/kg	1,100	<330	<330	<330	SNA		4.8E+09	1.3E+09	5.4E+08	NA
Fluorene	ug/kg	520	<330	<330	<330	SNA		4.8E+09	2.1E+08	5.4E+08	NA
Indeno (1,2,3)pyrene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	2.1E+05	NA
2-Methylnaphthalene	ug/kg	<330	<330	<330	<330	SNA		ID	ID	ID	NA
Naphthalene	ug/kg	<330	<330	<330	<330	SNA		4.8E+09	2.3E+07	1.6E+08	NA
Phenanthrene	ug/kg	2,600	<330	<330	<330	SNA		6.9E+07	ID	1.6E+07	NA
Pyrene	ug/kg	2,100	<330	<330	<330	SNA		3.5E+09	1.1E+09	3.4E+08	NA
<i>EPA Method 8260</i>											
Cis-1,2-dichloroethene	ug/kg	SNA	180	SNA	SNA	<10		2.7E+11	6.9E+07	8.2E+06	1.0E+06
Trichloroethene	ug/kg	SNA	670	SNA	SNA	<10		1.4E+09	1.9E+05	1.6E+06	1.2E+06

Notes:

ug/kg - micrograms per kilogram
ID - Insufficient data to determine a value

NA - Not available
SNA - Sample not analyzed for this compound

Samples collected March 1997

PSIC - Particulate soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

VSIC - Volatile soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

DCV - Direct contact value; from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Csat - Soil saturation screening concentration, from "Generic Soil Saturation Screening Concentrations: Technical support Document", 1/17/97

TABLE 4-2
SUMMARY OF LABORATORY ANALYTICAL DATA FOR SOIL
ORGANIC COMPOUNDS IN SOIL
PHASE II (ESI)

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Parameter Detected	Units	Sample Identification					Unlimited Land Use PSIC	Infinite Source VSIC	Generic Industrial Cleanup DCV	Generic Csat
		SB-P9-4-1 (0-6")	SB-P9-4-1 (12-14")	SB-P9-4-2 (0-6")	SB-P9-4-2 (6-8")	SB-P9-5-1 (10-12")				
<i>EPA Method 8270</i>										
Acenaphthene	ug/kg	<330	<330	<330	3,200	<330	7.3E+09	1.4E+08	8.1E+08	NA
Anthracene	ug/kg	<330	<330	<330	1,300	<330	3.5E+10	2.3E+09	1.0E+09	NA
Benzo(a)anthracene	ug/kg	<330	<330	<330	3,300	<330	ID	ID	2.1E+05	NA
Benzo(a)pyrene	ug/kg	<330	<330	<330	4,000	<330	1.1E+06	1.2E+06	2.1E+04	NA
Benzo(b)fluoranthene	ug/kg	<330	<330	<330	4,000	<330	ID	ID	2.1E+05	NA
Benzo(k)fluoranthene	ug/kg	<330	<330	<330	2,800	<330	ID	ID	2.1E+06	NA
Benzo(g, h, i)perylene	ug/kg	<330	<330	<330	3,400	<330	4.1E+08	ID	1.6E+07	NA
Chrysene	ug/kg	980	3,500	<330	4,200	<330	ID	ID	2.1E+07	NA
Dibenzo(a, h)anthracene	ug/kg	<330	<330	<330	690	<330	ID	ID	2.1E+04	NA
Dibenzofuran	ug/kg	<330	<330	<330	1,100	<330	ID	ID	ID	NA
Fluoranthene	ug/kg	<330	<330	<330	7,200	<330	4.8E+09	1.3E+09	5.4E+08	NA
Fluorene	ug/kg	800	6,300	<330	2,600	<330	4.8E+09	2.1E+08	5.4E+08	NA
Indeno (1,2,3)pyrene	ug/kg	<330	<330	<330	3,100	<330	ID	ID	2.1E+05	NA
2-Methylnaphthalene	ug/kg	<330	4,100	<330	680	<330	ID	ID	ID	NA
Naphthalene	ug/kg	<330	3,200	<330	1,500	<330	4.8E+09	2.3E+07	1.6E+08	NA
Phenanthrene	ug/kg	2,200	23,000	<330	9,500	<330	6.9E+07	ID	1.6E+07	NA
Pyrene	ug/kg	450	5,800	<330	18,000	<330	3.5E+09	1.1E+09	3.4E+08	NA
<i>EPA Method 8260</i>										
Cis-1,2-dichloroethene	ug/kg	SNA	SNA	SNA	SNA	<10	2.7E+11	6.9E+07	8.2E+06	1.0E+06
Trichloroethene	ug/kg	SNA	SNA	SNA	SNA	<10	1.4E+09	1.9E+05	1.6E+06	1.2E+06

Notes:

ug/kg - micrograms per kilogram
ID - Insufficient data to determine a value

NA - Not available

SNA - Sample not analyzed for this compound

Samples collected March 1997

PSIC - Particulate soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

VSIC - Volatile soil inhalation criteria; from "Draft Interim Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document", 12/12/96

DCV - Direct contact value; from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Csat - Soil saturation screening concentration, from "Generic Soil Saturation Screening Concentrations: Technical support Document", 1/17/97

TABLE 4-3
SUMMARY OF LABORATORY ANALYTICAL DATA
METALS IN SOIL
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

EPA Method	Parameter Detected	Detection Level	Units	Sample Identification							Generic Industrial/Commercial DCV	Generic Industrial Infinite Source VSIC	Generic Industrial PSIC	Csat	
				SB-P9-1-1 (8-10')	SB-P9-2-3 (10-12')	SB-P9-3-1 (14-16')	SB-P9-4-1 (0-6')	SB-P9-4-1 (12-14')	SB-P9-4-2 (0-6')	SB-P9-4-2 (6-8')					
6020	Arsenic	0.10	mg/kg	3.1	5.8	12	4.7	8.5	8.8	1.3	83	ID	ID	540	NA
6020	Barium	1.0	mg/kg	13	37	89	30	40	41	6.6	320,000	ID	ID	170,000	NA
6020	Cadmium	0.05	mg/kg	BDL	0.14	0.3	0.16	0.11	0.16	BDL	2,300	ID	ID	1,300	NA
6020	Chromium	0.20	mg/kg	5	13	28	7.4	14	19	4.3	1,000,000	ID	ID	69,000	NA
6020	Copper	1.0	mg/kg	3.8	9.1	19	7	10	11	2.4	170,000	ID	ID	69,000	NA
6020	Lead	1.0	mg/kg	2.8	6.2	13	4.7	7.2	10	1.7	400	ID	ID	52,000	NA
7471	Mercury	0.10	mg/kg	0.18	BDL	BDL	BDL	BDL	BDL	BDL	1,400	ID	ID	10,000	NA
6020	Selenium	0.50	mg/kg	BDL	0.51	0.67	0.7	1	0.8	BDL	23,000	ID	ID	69,000	NA
6020	Silver	0.50	mg/kg	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21,000	ID	ID	3500	NA
6020	Zinc	1.0	mg/kg	8.9	26	66	46	30	39	5.1	1,000,000	ID	ID	ID	NA

Notes:

ug/kg - micrograms per kilogram

BDL - below detection limit

ID - inadequate data to develop criterion

DCV - Direct Contact Values for Industrial Sites from MDEQ "Environmental Response Division Operational Memorandum #14 (Revision 2)"

VSIC - Volatile Soil Inhalation Criteria from MDEQ "Draft Interim Generic Soil Inhalation Criteria for Ambient Air, 12/12/96"

PSIC - Particulate Soil Inhalation Criteria from MDEQ "Draft Interim Generic Soil Inhalation Criteria for Ambient Air, 12/12/96"

MDEQ - Michigan Department of Environmental Quality

Csat - Generic Soil Saturation from "Generic Soil Saturation Screening Concentrations, 01/17/97"

TABLE 4-4
SUMMARY OF LABORATORY ANALYTICAL DATA
ORGANIC COMPOUNDS IN GROUNDWATER
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

Parameter Detected	Units	Sample Identification							GSI Values	GCC	Water Solubility
		TW-P9-1-1 3/24/97	TW-P9-2-3 3/25/97	TW-P9-3-2 3/25/97	TW-P9-4-1 3/25/97	TW-P9-4-2 3/25/97	TW-P9-5-1 3/26/97	TW-P9-5-2 3/26/97			
EPA Method 625											
Acenaphthene	ug/L	<5	<5	<5	<5	180	<5	SNA	3.8	>Solubility	4,240
Anthracene	ug/L	<5	<5	<5	<5	100	<5	SNA	1.1E+05	>Solubility	43
Benzo(a)anthracene	ug/L	<5	<5	<5	<5	190	<5	SNA	0.31	4	9
Benzo(b)fluoranthene	ug/L	<5	<5	<5	<5	190	<5	SNA	0.31	>Solubility	2
Benzo(k)fluoranthene	ug/L	<5	<5	<5	<5	79	<5	SNA	0.31	>Solubility	1
Benzo(a)pyrene	ug/L	<5	<5	<5	<5	160	<5	SNA	0.31	0.24	2
Benzo(g, h, i)perylene	ug/L	<5	<5	<5	<5	110	<5	SNA	{B}	ID	NA
Chrysene	ug/L	<5	<5	<5	<5	210	<5	SNA	0.31	>Solubility	2
Dibenzofuran	ug/L	<5	<5	<5	<5	70	<5	SNA	{B}	ID	NA
Fluoranthene	ug/L	<5	<5	<5	<5	430	<5	SNA	370	>Solubility	206
Fluorene	ug/L	<5	<5	<5	<5	170	<5	SNA	14,000	>Solubility	1,980
Indeno(1,2,3-cd)Pyrene	ug/L	<5	<5	<5	<5	110	<5	SNA	0.31	1.1	NA
2-Methylnaphthalene	ug/L	<5	<5	<5	<5	41	<5	SNA	{B}	>Solubility	24,600
Naphthalene	ug/L	<5	<5	<5	<5	74	<5	SNA	29	>Solubility	31,000
Phenanthrene	ug/L	<5	<5	<5	<5	580	<5	SNA	{B}	>Solubility	1,000
Pyrene	ug/L	<5	<5	<5	<5	780	<5	SNA	11,000	>Solubility	135
EPA Method 8260											
Cis-1,2-dichloroethene	ug/L	SNA	SNA	120 *	SNA	SNA	SNA	1 *	{B}	1.7E+05	3.5E+06
Trans-1,2-dichloroethene	ug/L	SNA	SNA	7 *	SNA	SNA	SNA	<1.0 *	300	2.0E+05	6.3E+06
Trichloroethene	ug/L	SNA	SNA	71 *	SNA	SNA	SNA	<1.0 *	94	11,000	1.1E+06
Vinyl Chloride	ug/L	SNA	SNA	1 *	SNA	SNA	SNA	<1.0 *	3.1	290	2.8E+06

Notes:

ug/L - micrograms per liter

ID - Insufficient data to determine a value

NA - Not available

SNA - Sample not analyzed for this compound

Samples collected March 1997

GCC - Groundwater Contact Criteria; from "Generic Groundwater Contact Criteria: Technical Support Document", 1/17/97

GSI - Groundwater Surface Water Interface; values from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Bold values exceed GCC.

Italic values exceed GSI.

{B} - Chemical has either not been evaluated or an inadequate data base precludes the development of a GSI value.

*collected in 1 liter amber bottle, data may not be reliable

TABLE 4-5
SUMMARY OF LABORATORY ANALYTICAL DATA
METALS IN GROUNDWATER
PHASE II ESI

FORMER BUILDING 9
DELPHI-FLINT WEST FACILITY
FLINT, MICHIGAN

	Parameter Detected	Detection Level	Units		Sample Identification		GSI Values	GCC	Water Solubility
					TW-P9-4-1 3/25/97	TW-P9-4-2 3/25/97			
200.8	Arsenic	1	ug/L	Total	22	22	11{A}	4,700	NA
200.8	Barium	200	ug/L	Dissolved*	BDL	20			
200.8				Total	260	BDL	630{A,D}	1.5E+07	NA
200.8	Cadmium	0.2	ug/L	Dissolved*	BDL	BDL			
200.8				Total	1	2.4	0.64{A,D}	1.1E+05	NA
200.8	Chromium	5	ug/L	Dissolved*	BDL	1.9			
200.8				Total	110	16	77{A,D}	3.2E+08	NA
200.8	Copper	20	ug/L	Dissolved*	6	24			
200.8				Total	80	30	18{A,D}	8.1E+06	NA
200.8	Lead	3	ug/L	Dissolved*	20	30			
200.8				Total	48	7	6.6{A,D}	ID	NA
200.8				Dissolved*	BDL	6			
245.1	Mercury	0.2	ug/L	Total	BDL	0.4	0.0013{A}	>Solubility	56
200.8				Dissolved*	BDL	BDL			
200.8	Selenium	5	ug/L	Total	BDL	6	5{A}	1.1E+06	NA
200.8				Dissolved*	BDL	9			
200.8	Zinc	20	ug/L	Total	200	150	81{A,D}	1.2E+08	NA
200.8				Dissolved*	40	140			

Notes:

ug/L - micrograms per liter

ID - Insufficient data to determine a value

Samples collected March 1997

NA - Not available

* - Sample field-filtered using a 1-micron filter.

GCC - Groundwater Contact Criteria; from "Generic Groundwater Contact Criteria: Technical Support Document", 1/17/97

GSI - Groundwater Surface Water Interface; values from Michigan Department of Environmental Quality Operational Memorandum #14, Revision 2

Bold values exceed GCC.

Italic values exceed GSI.

{A} - Background, as defined in Rule 701 (c), may be substituted if higher than the cleanup criteria.

{D} - GSI value is pH, temperature, or water hardness dependent.

BDL - below detection limits

Appendix A

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

APPENDIX A

SOIL BORING LOGS

SOIL BORING LOG

Exploration for:	Date:	Boring No.:	Record By:	Drill Type:	Weather:
PAAH's + 10 Michigan Metals	3/24/97	SB-PQ-1-1	John Menhennett	Geoprobe	Clear - 25°
Location Flint West Facility Building 9 PAOCI					
Water Table 15 Feet BLS					
Sample No.	Type	Depth From	To	No. of Blows	Soil Description and Boring Log
		LS	12"	-	Concrete
		12"	12'	N/A	10 YR 5/4 (Yellowish Brown) very fine to fine grained sand - well rounded to rounded moderately sorted
		12'	13'	N/A	2.5Y 4/1 (Dark gray) clayey sand - silt sized particles
		13'	18'	N/A	Same as 12' to 12' description
					(X) The 9.5 - 10' sample was verified contaminated and had a very strong odor. The actual depth was 10.5 - 11' BLS.
*Remarks	PH - Post Hole Digger SPT - Standard Penetration Test BLS = Below Land Surface				

SOIL BORING LOG

[illegible]

SOIL BORING LOG

[illegible]

SOIL BORING LOG

[illegible]

SOIL BORING RECORD

EXPLORATION FOR: PAH - 10 MI Metals					
DATE: 3/25/97					
BORING NO.: SB-P9-2-3					
RECORDED BY: John Menhennett					
DRILL TYPE: Geoprobe					
WEATHER: Overcast-Cold-Rainy 35°F					
LOCATION FLINT WEST FACILITY BUILDING 9 - PAOC 2					
WATER TABLE 15 FEET BLS					
SAMPLE NO.	TEST TYPE	DEPTH		NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
		FROM	TO		
		LS	15"		concrete
		15"	24'		fill + rock material
		24'	10.5'		same as SB-P9-2-2
		10.5'	14'		same as SB-P9-2-2
REMARKS BLS = Below Land Surface.					

SOIL BORING LOG

[illegible]

SOIL BORING LOG

[illegible]

SOIL BORING LOG

[illegible]

APPENDIX A
SOIL BORING LOGS

SOIL BORING LOG

Exploration for:		PAHS +10 ME Metals			
Date:	3/25/97				
Boring No.:	SB-P9-3-2				
Record By:	John Menhenett				
Drill Type:	Geoprobe				
Weather:	Overcast - Cold - Rainy 35°F				
		Location FLINT WEST FACILITY BUILDING 9 PAOC 3			
		Water Table @ 13' BLS			
Sample No.	Type	Depth		No. of Blows	Soil Description and Boring Log
		From	To		
		LS	3"		SAME AS SB-P9-3-1
		3"	9"		SAME AS SB-P9-3-1
		9"	16'		SAME AS SB-P9-3-1
*Remarks	PH - Post Hole Digger				BLS = Below Land Surface
	SPT - Standard Penetration Test				

SOIL BORING LOG

[illegible]

SOIL BORING LOG

[illegible]

SOIL BORING RECORD

[illegible]

SOIL BORING RECORD

EXPLORATION FOR: VOA'S					LOCATION FLINT WEST FACILITY BUILDING 9- PAUCS				
DATE: 3/26/97					WATER TABLE 13 FEET BLS				
BORING NO.: SB-PQ-5-2									
RECORDED BY: JOHN MENHENNETT									
DRILL TYPE: GEOPROBE									
WEATHER: OVERCAST - Cloud 35°F									
SAMPLE NO.	TEST TYPE	DEPTH FROM TO		NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG				
		LS	12"		~~Concrete~~ (w/ plastic liner)				
		12"	2'		Same as SB-PQ-5-1				
		2'	9'		same as SB-PQ-5-1				
		9'	12.5'		~~same as SB-PQ-5-1~~				
		12.5'	13'		same as SB-PQ-5-1				
					X odor present on this sample (petroleum like)				
REMARKS BLS = Below Land Surface									

SOIL BORING RECORD

EXPLORATION FOR: <u>VOAs</u>	LOCATION <u>FLINT WEST FACILITY</u> <u>BUILDING 9- PAOC5</u>
DATE: <u>3/26/97</u>	
BORING NO.: <u>SB-P9-5-3</u>	
RECORDED BY: <u>JOHN MENHENNETT</u>	
DRILL TYPE: <u>GEOPRIBE</u>	
WEATHER: <u>OVERCAST, COOL 35°F</u>	WATER TABLE <u>12' BELOW LAND SURFACE</u>

SAMPLE NO.	TEST TYPE	DEPTH		NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
		FROM	TO		
		LS	12"		concrete (w/ plastic liner)
		12"	15"		coal
		15"	2'		same as (12"-2') interval of SB-P9-5-1 + SB-P9-5-2
		2'	9'		same as SB-P9-5-1 + SB-P9-5-2
		9'	12.5'		same as SB-P9-5-1 + SB-P9-5-2
		12.5'	130'		same as SB-P9-5-1 + SB-P9-5-2

REMARKS

SOIL BORING LOG

[illegible]

SOIL BORING RECORD

EXPLORATION FOR:		VOAs 10 MI Metals		LOCATION		FLINT WEST FACILITY BUILDING 9-PAOC 5	
DATE:		3/26/97		WATER TABLE		13 FEET BLS	
BORING NO.:		SB-P9-5-1		RECORDED BY:		JOHN MENHENNETT	
DRILL TYPE:		GEOPROBE		WEATHER:		Overcast - Cool - 35°F	
SAMPLE NO.	TEST TYPE	DEPTH FROM	DEPTH TO	NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG		
		LS	12"		concrete Cw / a plastic liner		
		12"	2'		104R3/3 (black lacun) fill material w/ soil very fine to fine grained sand w/ granular size particles - (metal shavings 14		
		2'	9'		104R5/6 (yellowish lacun) sand, very fine to fine grained, not rounded to rounded - moderately sorted		
		9	12.5'		104R9/6 (dark yellowish lacun) - same as 2-9' layer		
		12.5'	13'		5GV13 (grayish green) silty clay - noticeable shear present in sample		
REMARKS		BLS = Below Land Surface.					

SOIL BORING RECORD

EXPLORATION FOR:		<u>VOA'S</u>		LOCATION FLINT WEST FACILITY BUILDING 9- PAUCS	
DATE:		<u>3/26/97</u>		WATER TABLE 13 FEET BLS	
BORING NO.:		<u>SB-PQ-5-2</u>			
RECORDED BY:		<u>JOHN MENHENNETT</u>			
DRILL TYPE:		<u>GEOPROBE</u>			
WEATHER:		<u>OVERCAST - Cool 35°F</u>			
SAMPLE NO.	TEST TYPE	DEPTH FROM TO		NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
		<u>LS</u>	<u>12"</u>		<u>Concrete (w/ plastic liner)</u>
		<u>12"</u>	<u>2'</u>		<u>Same as SB-PQ-5-1</u>
		<u>2'</u>	<u>9'</u>		<u>same as SB-PQ-5-1</u>
		<u>9'</u>	<u>12.5'</u>		<u>same as SB-PQ-5-1</u>
		<u>12.5'</u>	<u>13'</u>		<u>same as SB-PQ-5-1</u>
					<u>(odor present on this sample (petroleum like))</u>
REMARKS					
<u>BLS = Below Land Surface</u>					

SOIL BORING RECORD

EXPLORATION FOR: <u>VOAs</u>	LOCATION <u>FLINT WEST FACILITY</u> <u>BUILDING 9- PAOC5</u>
DATE: <u>3/26/97</u>	
BORING NO.: <u>SB-P9-5-3</u>	
RECORDED BY: <u>JOHN MENHENNETT</u>	
DRILL TYPE: <u>GEOPRIBE</u>	
WEATHER: <u>OVERCAST, COOL 35°F</u>	WATER TABLE <u>12' BELOW LAND SURFACE</u>

SAMPLE NO.	TEST TYPE	DEPTH		NO. OF BLOWS	SOIL DESCRIPTION AND BORING LOG
		FROM	TO		
		LS	12"		concrete (w/ plastic liner)
		12"	15"		coal
		15"	2'		same as (12"-2') interval of SB-P9-5-1 + SB-P9-5-2
		2'	9'		same as SB-P9-5-1 + SB-P9-5-2
		9'	12.5'		same as SB-P9-5-1 + SB-P9-5-2
		12.5'	130'		same as SB-P9-5-1 + SB-P9-5-2

REMARKS

Appendix B

BLASLAND, BOUCK & LEE, INC.
engineers & scientists



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River
Suite 110

Date Sampled: 03/24/97

Boca Raton, FL 33431

Sample ID: TW-P9-1-1

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07554

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-1-1

BA Sample ID: AJ07554

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-1-1

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07554

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-1-1

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07554

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL= Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: TW-P9-2-3

BA Sample ID: AJ07586

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: TW-P9-2-3

BA Sample ID: AJ07586

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,3,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-2-3

BA Report Number: 20718
BA Sample ID: AJ07586

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
1-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-2-3

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07586

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/11/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: TW-P9-3-2
BA Report Number: 20718
BA Sample ID: AJ07578

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Benzene	Not detected	ug/L	5	SW846 8260	MC	04/08/97
Benzyl chloride	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Bromodichloromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Bromoform	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Bromomethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Carbon disulfide	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Chlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Chloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Chloroform	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Chloromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Dibromochloromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Dibromomethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97



Sample ID: TW-P9-3-2

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07578

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
cis-1,2-Dichloroethene	120	ug/L	1	SW846 8260	MC	04/08/97
trans-1,2-Dichloroethene	7	ug/L	1	SW846 8260	MC	04/08/97
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Diethyl ether	Not detected	ug/L	100	SW846 8260	MC	04/08/97
Ethyl benzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
2-Hexanone	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Methylene chloride	Not detected	ug/L	1	SW846 8260	MC	04/08/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Styrene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Tetrachloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Toluene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Trichloroethene	71	ug/L	1	SW846 8260	MC	04/08/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	04/08/97



Sample ID: TW-P9-3-2

BA Report Number: 20718
BA Sample ID: AJ07578

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Vinyl chloride	1	ug/L	1	SW846 8260	MC	04/08/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	04/08/97

DL = Detection Limit as recommended by MDEQ.

Released by:
Date:



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River

Date Submitted: 03/27/97

Suite 110

Date Sampled: 03/25/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-3-2

BA Sample ID: AJ07563

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzy alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
3is(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
3is(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
3is(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-3-2

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07563

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
1-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-3-2

BA Report Number: 20717
BA Sample ID: AJ07563

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-3-2

BA Report Number: 20717
BA Sample ID: AJ07563

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL= Detection Limit as recommended by MDEQ.

Released by:

Date: 4/3/97



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/03/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: TW-P9-4-1 BA Report Number: 20717 Project Name: Flint West Bldg 9
BA Sample ID: AJ07551 Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Total Arsenic	0.022	mg/L	0.001	EPA 200.8	GW	04/01/97
Total Barium	0.26	mg/L	0.20	EPA 200.8	GW	04/01/97
Total Cadmium	0.0010	mg/L	0.0002	EPA 200.8	GW	04/01/97
Total Chromium	0.11	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Copper	0.08	mg/L	0.02	EPA 200.8	GW	04/01/97
Total Lead	0.048	mg/L	0.003	EPA 200.8	GW	04/01/97
Total Mercury	Not detected	mg/L	0.0002	EPA 245.1	GW	04/01/97
Total Selenium	Not detected	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Silver	Not detected	mg/L	0.0005	EPA 200.8	GW	04/01/97
Total Zinc	0.20	mg/L	0.02	EPA 200.8	GW	04/01/97
Metal Water Total (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97

Dissolved Metal Analysis



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-1

BA Sample ID: AJ07551

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dissolved Arsenic	Not detected	mg/L	0.001	EPA 200.8	DB	04/03/97
Dissolved Barium	Not detected	mg/L	0.20	EPA 200.8	DB	04/03/97
Dissolved Cadmium	Not detected	mg/L	0.0002	EPA 200.8	DB	04/03/97
Dissolved Chromium	0.006	mg/L	0.005	EPA 200.8	DB	04/03/97
Dissolved Copper	0.02	mg/L	0.02	EPA 200.8	DB	04/03/97
Dissolved Lead	Not detected	mg/L	0.003	EPA 200.8	DB	04/03/97
Dissolved Mercury	Not detected	mg/L	0.0002	EPA 245.1	GW	04/01/97
Dissolved Selenium	Not detected	mg/L	0.005	EPA 200.8	DB	04/03/97
Dissolved Silver	Not detected	mg/L	0.0005	EPA 200.8	DB	04/03/97
Dissolved Zinc	0.04	mg/L	0.02	EPA 200.8	DB	04/03/97
Mercury (digestion)	Digested				GW	04/01/97

Semi-Volatile Analysis

Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-1

BA Sample ID: AJ07551

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-1

BA Sample ID: AJ07551

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: TW-P9-4-1

BA Report Number: 20717
BA Sample ID: AJ07551

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-2

BA Sample ID: AJ07559

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dissolved Arsenic	0.020	mg/L	0.001	EPA 200.8	DB	04/03/97
Dissolved Barium	Not detected	mg/L	0.20	EPA 200.8	DB	04/03/97
Dissolved Cadmium	0.0019	mg/L	0.0002	EPA 200.8	DB	04/03/97
Dissolved Chromium	0.024	mg/L	0.005	EPA 200.8	DB	04/03/97
Dissolved Copper	0.03	mg/L	0.02	EPA 200.8	DB	04/03/97
Dissolved Lead	0.006	mg/L	0.003	EPA 200.8	DB	04/03/97
Dissolved Mercury	Not detected	mg/L	0.0002	EPA 245.1	GW	04/01/97
Dissolved Selenium	0.009	mg/L	0.005	EPA 200.8	DB	04/03/97
Dissolved Silver	Not detected	mg/L	0.0005	EPA 200.8	DB	04/03/97
Dissolved Zinc	0.14	mg/L	0.02	EPA 200.8	DB	04/03/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	180	ug/L	20	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Anthracene	100	ug/L	20	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	200	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	200	EPA 625	MC	03/28/97
Benzo(a)anthracene	190	ug/L	20	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	190	ug/L	20	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	79	ug/L	20	EPA 625	MC	03/28/97
Benzo(ghi)perylene	110	ug/L	20	EPA 625	MC	03/28/97
Benzo(a)pyrene	160	ug/L	20	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	20	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-2

BA Sample ID: AJ07559

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-chloroethoxy)methane	Not detected	ug/L	20	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	80	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	80	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Chrysene	210	ug/L	20	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Dibenzofuran	70	ug/L	20	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	80	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-2

BA Sample ID: AJ07559

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dimethylphthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	80	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	80	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	20	EPA 625	MC	03/28/97
Fluoranthene	430	ug/L	20	EPA 625	MC	03/28/97
Fluorene	170	ug/L	20	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	20	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	110	ug/L	20	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Methylnaphthalene	41	ug/L	20	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	20	EPA 625	MC	03/28/97
Naphthalene	74	ug/L	20	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	80	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	80	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	80	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: TW-P9-4-2

BA Sample ID: A107559

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	80	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	20	EPA 625	MC	03/28/97
Pentachlorophenol	Not detected	ug/L	4	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	20	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	20	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	200	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

04/3/97

Elevated BNA dl due to dilution.



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/04/97
Date Submitted: 03/27/97
Date Sampled: 03/26/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: TW-P9-5-1
BA Report Number: 20718
BA Sample ID: AJ07574

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benidine	Not detected	ug/L	50	EPA 625	MC	04/03/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	04/03/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Benzy alcohol	Not detected	ug/L	5	EPA 625	MC	04/03/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	04/03/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	04/03/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	04/03/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: TW-P9-5-1

BA Sample ID: AJ07574

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	04/03/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	04/03/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	04/03/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	04/03/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	04/03/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	04/03/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	04/03/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	04/03/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: TW-P9-5-1

BA Sample ID: AJ07574

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	04/03/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	04/03/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	04/03/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	04/03/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	04/03/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	04/03/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	04/03/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	04/03/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	04/03/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	04/03/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	04/03/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	04/03/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	04/03/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	04/03/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	04/03/97



Sample ID: TW-P9-5-1

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07574

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	04/03/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	04/03/97
Phenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	04/03/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	04/03/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	04/03/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	04/03/97
BNA (extraction)	Extracted			8270/625	SL	04/01/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date: 04/14/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 03/26/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: TW-P9-5-2

BA Report Number: 20718
BA Sample ID: AJ07576

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Benzene	Not detected	ug/L	5	SW846 8260	MC	03/28/97
Benzyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromodichloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromoform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon disulfide	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dibromochloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07576

Project Number: 869-76

Sample ID: TW-P9-5-2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,1-Dichloroethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,2-Dichloroethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,1-Dichloroethene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
cis-1,2-Dichloroethene	1	ug/L	1	SW/846 8260	MC	03/28/97
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,2-Dichloropropane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Diethyl ether	Not detected	ug/L	100	SW/846 8260	MC	03/28/97
Ethyl benzene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
2-Hexanone	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Methylene chloride	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Styrene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Tetrachloroethene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Toluene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: TW-P9-5-2

BA Sample ID: AJ07576

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Vinyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	03/28/97

DL= Detection Limit as recommended by MDEQ.

Released by:

[Signature]

Date:

4/2/97

Volatile received in improper container.



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/24/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-1 0-6"

BA Sample ID: AJ07544

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-1 0-6"

BA Sample ID: AJ07544

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-1 0-6"

BA Sample ID: AJ07544

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW/846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-1 0-6"

BA Sample ID: AJ07544

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	88.6	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: *retro*
Date: 4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Date Submitted: 03/27/97

Suite 110

Date Sampled: 03/24/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-18-10'

BA Sample ID: AJ07545

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	3.1	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	13	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	Not detected	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	5.0	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	3.8	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	2.8	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	0.18	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	8.9	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-18-10'

BA Sample ID: AJ07545

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-1-8-10'

BA Sample ID: AJ07545

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97



Sample ID: SB-P9-1-18-10'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07545

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted	ug/Kg	330	8270/625	ST	03/28/97
%Solid	90.2	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/24/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-2-0-6"

BA Sample ID: A107546

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-2-0-6"

BA Sample ID: AJ07546

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-2-0-6"

BA Sample ID: AJ07546

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW/846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
N-Nitrosodimethylaniline	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97



Sample ID: SB-P9-1-2-0-6"

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: A107546

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	89.1	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/24/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-214-16'

BA Sample ID: AJ07547

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-2-14-16'

BA Sample ID: AJ07547

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-1-2 14-16'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07547

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-1-2-14-16

BA Sample ID: AJ07547

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	90.0	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 02/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-1 0-6"

BA Sample ID: AJ07568

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-1-0-6"

BA Report Number: 20717
BA Sample ID: AJ07568

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-1 0-6"

BA Sample ID: AJ07568

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-1 0-6"

BA Report Number: 20717
BA Sample ID: AJ07566

Project Name: **Flint West Bldg 9**
Project Number: **86976**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	93.0	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

Withard
6/4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-1 6"-2'

BA Sample ID: AJ07569

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzy alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-1 6"-2'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07569

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-1 6"-2'

BA Sample ID: AJ07569

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-1 6"-2'

BA Sample ID: AJ07569

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	90.1	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

outpost

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97
To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

BA Report Number: 20717 Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-2-0-6" BA Sample ID: AJ07570 Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-2-0-6"

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07570

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-2 0-6"

BA Sample ID: AJ07570

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97
To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

BA Report Number: 20717
Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-2-2-4'
BA Sample ID: AJ07571
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-2-4'

BA Report Number: 20717
BA Sample ID: AJ07571

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-2-4'

BA Report Number: 20717 Project Name: Flint West Bldg 9

BA Sample ID: AJ07571

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Sample ID: A.J07571

Project Number: 86976

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

intact

04/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-3-0-6"

BA Sample ID: AJ07584

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW/846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW/846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-3-0-6"

BA Sample ID: AJ07584

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-3-0-6"

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07584

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno (1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-3 0-6"

BA Report Number: 20718
BA Sample ID: AJ07584

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	88.1	%		ASTM D-221	CW	03/28/97

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ.

Released by:

Date: 4/2/97



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97
To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

BA Report Number: 20718
Project Name: Flint West Bldg 9
Sample ID: SB-P9-2-3 10-12' BA Sample ID: AJ07585 Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	5.8	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	37	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.14	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	13	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	9.1	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	6.2	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	0.51	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	26	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-3 10-12'

BA Sample ID: AJ07585

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-2-3 10-12'

BA Sample ID: A107585

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97



Sample ID: SB-P9-2-3 10-12'

BA Report Number: 20718
BA Sample ID: AJ07585

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted	ug/Kg	330	SW846 8270	MC	03/28/97

%Solid

85.3

%

ASTM D-2216

CW

03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/2/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-1 6"-2'

BA Sample ID: AJ07561

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzy alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-3-1 6"-2'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07561

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	8000	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	1100	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	520	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-1 6'-2'

BA Sample ID: AJ07561

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW/846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97



Sample ID: SB-P9-3-16'-2'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07561

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	2600	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	2100	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	87.5	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: W. J. [Signature]
Date: 4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110
Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-114-16'

BA Sample ID: A107562

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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Metal Analysis

Total Arsenic	12	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	89	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.30	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	28	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	19	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	13	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	0.67	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	66	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97

Semi-Volatile Analysis

Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97

BA Report Number: **20717**

Project Name: **Flint West Bldg 9**

Sample ID: **SB-P9-3-1 14-16'**

BA Sample ID: **AJ07562**

Project Number: **86976**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-1 14-16'

BA Sample ID: AJ07562

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-1 14-16'

BA Sample ID: AJ07562

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNAs (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	76.8	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/08/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: SB-P9-3-1 14-16' BA Report Number: 20718 Project Name: Flint West Bldg 9
BA Sample ID: AJ07577 Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Benzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Benzyl chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromodichloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromoform	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromomethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
2-Butanone (MEK)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Carbon disulfide	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Carbon tetrachloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloroform	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Dibromochloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97



Sample ID: SB-P9-3-1 14-16'

BA Report Number: 20718
BA Sample ID: AJ07577

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,2-Dichloroethene	180	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,2-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Dichlorodifluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloropropane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Diethyl ether	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Ethyl benzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
2-Hexanone	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methylene chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Styrene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Tetrachloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Toluene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97



Sample ID: SB-P9-3-1 14-16'

BA Report Number: 20718
BA Sample ID: AJ07577

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Trichloroethene	670	ug/Kg	10	SW846 8260	MC	04/07/97
Trichlorofluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Vinyl acetate	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Vinyl chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Xylenes	Not detected	ug/Kg	30	SW846 8260	MC	04/07/97
%Solid	78.8	%		ASTM D-221	CW	04/07/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: [Signature]
Date: 4/11/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: **SB-P9-3-2-6"-2'**

BA Report Number: **20717**
BA Sample ID: **AJ07566**

Project Name: **Flint West Bldg 9**
Project Number: **86976**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BenzyI alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: **SB-P9-3-26"-2'**

BA Report Number: **20717**

Project Name: **Flint West Bldg 9**

BA Sample ID: **AJ07566**

Project Number: **86976**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-3-2 6"-2'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07566

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-3-2-6"-2'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07566

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted	ug/Kg		8270/625	ST	03/28/97
%Solid	86.0	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: W. J. J. J.
Date: 4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/25/97

Suite 110
Boca Raton, FL 33431

Sample ID: SB-P9-3-2-4-6'

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07567

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-2-4-6'

BA Sample ID: AJ07567

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-2-4-6'

BA Sample ID: AJ07567

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW/846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-2 4-6'

BA Sample ID: AJ07567

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	83.4	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: utpact
Date: 4/3/97



Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/08/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

BA Report Number: 20718 Project Name: Flint West Bldg 9
BA Sample ID: A107579 Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Benzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Benzyl chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromodichloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromoform	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Bromomethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
2-Butanone (MEK)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Carbon disulfide	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Carbon tetrachloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloroform	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Chloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Dibromochloromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97



BA Report Number: **20718**
Sample ID: **SB-P9-3-2 10-12'**

BA Sample ID: **AJ07579**

Project Name: **Flinn West Bldg 9**
Project Number: **869-76**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,2-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,2-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Dichlorodifluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloropropane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Diethyl ether	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Ethyl benzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
2-Hexanone	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methylene chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Styrene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Tetrachloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Toluene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-3-2 10-12'

BA Sample ID: AJO7579

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Trichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Trichlorofluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Vinyl acetate	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Vinyl chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Xylenes	Not detected	ug/Kg	30	SW846 8260	MC	04/07/97
%Solid	80.8	%		ASTM D-221	CW	04/07/97

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ.

Released by:

Date:

Wheat
4/11/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/03/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River
Suite 110

Date Sampled: 03/24/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-1 0-6"

BA Sample ID: AJ07549

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	4.7	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	30	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.16	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	7.4	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	7.0	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	4.7	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	0.70	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	46	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97

Semi-Volatile Analysis



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-1 0-6"

BA Sample ID: AJ07549

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Buryl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	980	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-1 0-6"

BA Sample ID: AJ07549

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	800	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-1 0-6"

BA Sample ID: AJ07549

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	2200	ug/Kg	330	SW846 8270	MC	03/28/97



Sample ID: SB-P9-4-1 0-6"

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis Date

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07549

Project Number: 86976

Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	450	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	90.1	%		ASTM D-221	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97
Date Submitted: 03/27/97
Date Sampled: 03/24/97
To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: SB-P9-4-1 12-14'

BA Report Number: 20717
BA Sample ID: AJ07548
Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	8.5	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	40	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.11	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	14	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	10	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	7.2	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	1.0	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	30	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-1-12-14'

BA Sample ID: AJ07548

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	20000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	20000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Chrysene	3500	ug/Kg	1320	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	40	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	40	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	40	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-112-14'

BA Sample ID: AJ07548

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	8000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Fluoranthene	3900	ug/Kg	1320	SW846 8270	MC	03/28/97
Fluorene	6300	ug/Kg	1320	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	800	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2-Methylnaphthalene	4100	ug/Kg	1320	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Naphthalene	3200	ug/Kg	1320	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-112-14'

BA Sample ID: AJ07548

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
Phenanthrene	23000	ug/Kg	1320	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
Pyrene	5800	ug/Kg	1320	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	6800	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	1320	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	85.7	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL= Detection Limit as recommended by MDEQ.

Released by:

Date:

4/3/97



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97
Date Submitted: 03/27/97
Date Sampled: 03/25/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: SB-P9-4-2-0-6"

BA Report Number: 20717
BA Sample ID: AJ07555
Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	8.8	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	41	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.16	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	19	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	11	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	10	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	0.80	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	39	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-2-0-6"

BA Sample ID: AJ07555

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-2-0-6"

BA Sample ID: AJ07555

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97

4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Date Submitted: 03/27/97

Suite 110

Date Sampled: 03/25/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-426-8'

BA Sample ID: AJ07556

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	1.3	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	6.6	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	Not detected	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	4.3	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	2.4	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	1.7	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	5.1	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	3200	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-2-6-8'

BA Sample ID: AJ07556

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	1300	ug/Kg	330	SW846 8270	MC	03/28/97
Benzidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	3300	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	4000	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	2800	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	3400	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	4000	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	4200	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	690	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	1100	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-2-6-8'

BA Sample ID: AJ07556

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW/846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Fluoranthene	7200	ug/Kg	330	SW/846 8270	MC	03/28/97
Fluorene	2600	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW/846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	3100	ug/Kg	330	SW/846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylnaphthalene	680	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW/846 8270	MC	03/28/97
Naphthalene	1500	ug/Kg	330	SW/846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW/846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: SB-P9-4-2-6-8'

BA Sample ID: A107556

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	9500	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	18000	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	89.1	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

04/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/08/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River
Suite 110

Date Sampled: 03/26/97

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-5-1

BA Sample ID: AJ07575

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/Kg	100	SW/846 8260	MC	04/07/97
Benzene	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Benzyl chloride	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Bromodichloromethane	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Bromoform	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Bromomethane	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
2-Butanone (MEK)	Not detected	ug/Kg	100	SW/846 8260	MC	04/07/97
Carbon disulfide	Not detected	ug/Kg	100	SW/846 8260	MC	04/07/97
Carbon tetrachloride	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Chlorobenzene	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Chloroethane	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Chloroform	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Chloromethane	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97
Dibromochloromethane	Not detected	ug/Kg	10	SW/846 8260	MC	04/07/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-5-1

BA Sample ID: AJ07575

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,2-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,2-Dichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Dichlorodifluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,2-Dichloropropane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
cis-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
trans-1,3-Dichloropropene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Diethyl ether	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Ethyl benzene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
2-Hexanone	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methylene chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Styrene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Tetrachloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Toluene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: SB-P9-5-1

BA Sample ID: AJ07575

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
1,1,2-Trichloroethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Trichloroethene	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Trichlorofluoromethane	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Vinyl acetate	Not detected	ug/Kg	100	SW846 8260	MC	04/07/97
Vinyl chloride	Not detected	ug/Kg	10	SW846 8260	MC	04/07/97
Xylenes	Not detected	ug/Kg	30	SW846 8260	MC	04/07/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	04/07/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	04/07/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97



BA Report Number: **20718**

Project Name: **Flint West Bldg 9**

Sample ID: **SB-P9-5-1**

BA Sample ID: **AJ07575**

Project Number: **869-76**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	04/07/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	04/07/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	04/07/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	04/07/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97



Sample ID: SB-P9-5-1

Parameters

BA Report Number: 20718

BA Sample ID: AJ07575

Project Name: Flint West Bldg 9

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	04/07/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97



Sample ID: SB-P9-5-1

Parameters

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: A107575

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	04/07/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	04/07/97
BNA (extraction)	Extracted			8270/625	YH	04/07/97
%Solid	86.6	%		ASTM D-221	CW	04/07/97

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by:
Date:



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Date Submitted: 03/27/97

Suite 110

Date Sampled: 03/24/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 1-1

BA Sample ID: AJ07550

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzy alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 1-1

BA Sample ID: AJ07550

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 1-1

BA Sample ID: AJ07550

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 1-1

BA Sample ID: AJ07550

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	89.9	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL= Detection Limit as recommended by MDEQ.

Released by: W. J. J. J.
Date: 4/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River
Suite 110

Date Sampled: 03/24/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 2

BA Sample ID: AJ07552

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	6.2	mg/Kg	0.10	SW846 6020	GW	03/31/97
Total Barium	17	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Cadmium	0.09	mg/Kg	0.05	SW846 6020	GW	03/31/97
Total Chromium	6.6	mg/Kg	0.20	SW846 6020	GW	03/31/97
Total Copper	4.9	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Lead	4.2	mg/Kg	1.0	SW846 6020	GW	03/31/97
Total Mercury	Not detected	mg/Kg	0.10	SW846 7471	GW	04/01/97
Total Selenium	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Silver	Not detected	mg/Kg	0.50	SW846 6020	GW	03/31/97
Total Zinc	14	mg/Kg	1.0	SW846 6020	GW	03/31/97
Metal Soil (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 2

BA Sample ID: AJ07552

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benidine	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzoic acid	Not detected	ug/Kg	5000	SW846 8270	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Benzyl alcohol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Bis(2-ethylhexyl)phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloroaniline	330	ug/Kg	1700	SW846 8270	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Chlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Chrysene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dibenzofuran	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/Kg	10	SW846 8270	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate 2

BA Sample ID: AJ07552

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
3,3'-Dichlorobenzidine	Not detected	ug/Kg	2000	SW846 8270	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Diethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Dimethylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,6-Dinitrotoluene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Fluoranthene	350	ug/Kg	330	SW846 8270	MC	03/28/97
Fluorene	820	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/Kg	200	SW846 8270	MC	03/28/97
Hexachloroethane	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Isophorone	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Naphthalene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
3-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
4-Nitroaniline	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97



Sample ID: Duplicate 2

BA Report Number: 20717
BA Sample ID: AJ07552

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Nitrobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2-Nitrophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
4-Nitrophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosophenylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pentachlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
Phenanthrene	2200	ug/Kg	330	SW846 8270	MC	03/28/97
Phenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
Pyrene	440	ug/Kg	330	SW846 8270	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/Kg	1700	SW846 8270	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/Kg	330	SW846 8270	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97
%Solid	87.7	%		ASTM D-2216	CW	03/28/97

All soil results based on dry weight.

DL= Detection Limit as recommended by MDEQ.

Released by:

entire

Date:

04/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Suite 110

Boca Raton, FL 33431

Date Submitted: 03/27/97

Date Sampled: 03/25/97

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07564

Project Number: 86976

Sample ID: Duplicate

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate

BA Sample ID: AJ07564

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717
BA Sample ID: AJ07564

Project Name: Flint West Bldg 9
Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: Duplicate

BA Sample ID: A107564

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL= Detection Limit as recommended by MDEQ.

Released by: Wetzel
Date: 4/3/97



TM

Brighton Analytical, Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97
Date Submitted: 03/27/97
Date Sampled: 03/26/97

To: Blasland, Blouck & Lee
185 N.W. Spanish River
Suite 110
Boca Raton, FL 33431

Sample ID: Duplicate 5

BA Report Number: 20718
BA Sample ID: AJ07573

Project Name: Flint West Bldg 9
Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Benzene	Not detected	ug/L	5	SW/846 8260	MC	03/28/97
Benzyl chloride	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Bromodichloromethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Bromoform	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Bromomethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
2-Butanone (MEK)	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Carbon disulfide	Not detected	ug/L	50	SW/846 8260	MC	03/28/97
Carbon tetrachloride	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Chlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Chloroethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Chloroform	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Chloromethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97
Dibromochloromethane	Not detected	ug/L	1	SW/846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07573

Project Number: 869-76

Sample ID: Duplicate 5

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,2-Dichloroethene	46	ug/L	1	SW846 8260	MC	03/28/97
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Diethyl ether	Not detected	ug/L	100	SW846 8260	MC	03/28/97
Ethyl benzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Hexanone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methylene chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Styrene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Tetrachloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Toluene	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: Duplicate 5

BA Sample ID: AJ07573

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichloroethene	25	ug/L	1	SW846 8260	MC	03/28/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Vinyl chloride	2	ug/L	1	SW846 8260	MC	03/28/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	03/28/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/2/97

Volatile received in improper container.



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/24/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 1

BA Sample ID: AJ07553

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	Not detected	mg/L	0.001	EPA 200.8	GW	04/01/97
Total Barium	Not detected	mg/L	0.20	EPA 200.8	GW	04/01/97
Total Cadmium	Not detected	mg/L	0.0002	EPA 200.8	GW	04/01/97
Total Chromium	Not detected	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Copper	Not detected	mg/L	0.02	EPA 200.8	GW	04/01/97
Total Lead	Not detected	mg/L	0.003	EPA 200.8	GW	04/01/97
Total Mercury	Not detected	mg/L	0.0002	EPA 245.1	GW	04/01/97
Total Selenium	Not detected	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Silver	Not detected	mg/L	0.0005	EPA 200.8	GW	04/01/97
Total Zinc	0.06	mg/L	0.02	EPA 200.8	GW	04/01/97
Metal Water Total (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97



DL=Detection Limit as recommended by MDEQ.

Released by: _____

outback

Date: _____

04/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Date Submitted: 03/27/97

Suite 110

Date Sampled: 03/25/97

Boca Raton, FL 33431

BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 2

BA Sample ID: AJ07557

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



Sample ID: EQ Rinse 2

BA Report Number: 20717

Project Name: Flint West Bldg 9

BA Sample ID: AJ07557

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: **20717**

Project Name: **Flinn West Bldg 9**

Sample ID: **EQ Rinse 2**

BA Sample ID: **AJ07557**

Project Number: **86976**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20717

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 2

BA Sample ID: A.J07557

Project Number: 86976

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL=Detection Limit as recommended by MDEQ.

Released by:

with good

Date:

04/3/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Suite 110

Boca Raton, FL 33431

Date Submitted: 03/27/97

Date Sampled: 03/25/97

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07580

Project Number: 869-76

Sample ID: EQ Rinse 3

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Acenaphthylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzidine	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzoic acid	Not detected	ug/L	50	EPA 625	MC	03/28/97
Benzo(a)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(b)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(k)fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(ghi)perylene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzo(a)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Benzyl alcohol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethoxy)methane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroethyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Bis(2-chloroisopropyl)ether	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 3

BA Sample ID: A107580

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Bis(2-ethylhexyl)phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Bromophenyl phenyl ether	Not detected	ug/L	20	EPA 625	MC	03/28/97
Butyl benzyl phthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chloro-3-methylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Chlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	EPA 625	MC	03/28/97
Chrysene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzo(a,h)anthracene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dibenzofuran	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-butylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
3,3'-Dichlorobenzidine	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,6-Dichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Diethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4-Dimethylphenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Dimethylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
2,4-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 3

BA Sample ID: AJ07580

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,6-Dinitrotoluene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Di-n-octylphthalate	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2-Diphenylhydrazine	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluoranthene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Fluorene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorobutadiene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Hexachlorocyclopentadiene	Not detected	ug/L	2	EPA 625	MC	03/28/97
Hexachloroethane	Not detected	ug/L	5	EPA 625	MC	03/28/97
Indeno(1,2,3)pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Isophorone	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Methylphenol (o-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Methylphenol (p-Cresol)	Not detected	ug/L	5	EPA 625	MC	03/28/97
Naphthalene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
3-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
4-Nitroaniline	Not detected	ug/L	20	EPA 625	MC	03/28/97
Nitrobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2-Nitrophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
4-Nitrophenol	Not detected	ug/L	20	EPA 625	MC	03/28/97
N-Nitrosodimethylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodiphenylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	EPA 625	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 3

BA Sample ID: AJ07580

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pentachlorophenol	Not detected	ug/L	1	EPA 625	MC	03/28/97
Phenanthrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
Phenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
Pyrene	Not detected	ug/L	5	EPA 625	MC	03/28/97
1,2,4-Trichlorobenzene	Not detected	ug/L	5	EPA 625	MC	03/28/97
2,4,5-Trichlorophenol	Not detected	ug/L	50	EPA 625	MC	03/28/97
2,4,6-Trichlorophenol	Not detected	ug/L	5	EPA 625	MC	03/28/97
BNA (extraction)	Extracted			8270/625	ST	03/28/97

DL=Detection Limit as recommended by MDEQ.

Released by:

W. P. P. P.

Date:

4/2/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Suite 110

Date Submitted: 03/27/97
Date Sampled: 03/25/97

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 4

BA Sample ID: AJ07581

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Arsenic	Not detected	mg/L	0.001	EPA 200.8	GW	04/01/97
Total Barium	Not detected	mg/L	0.20	EPA 200.8	GW	04/01/97
Total Cadmium	0.0010	mg/L	0.0002	EPA 200.8	GW	04/01/97
Total Chromium	Not detected	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Copper	Not detected	mg/L	0.02	EPA 200.8	GW	04/01/97
Total Lead	Not detected	mg/L	0.003	EPA 200.8	GW	04/01/97
Total Mercury	Not detected	mg/L	0.0002	EPA 245.1	GW	04/01/97
Total Selenium	Not detected	mg/L	0.005	EPA 200.8	GW	04/01/97
Total Silver	Not detected	mg/L	0.0005	EPA 200.8	GW	04/01/97
Total Zinc	0.06	mg/L	0.02	EPA 200.8	GW	04/01/97
Metal Water Total (digestion)	Digested				LS	03/28/97
Mercury (digestion)	Digested				GW	04/01/97



DL = Detection Limit as recommended by MDEQ.

Released by: _____

W. J. [Signature]

Date: _____

4/2/97



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/11/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River
Suite 110

Date Sampled: 03/26/97

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 5

BA Sample ID: AJ07582

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW/846 8260	MC	04/08/97
Benzene	Not detected	ug/L	5	SW/846 8260	MC	04/08/97
Benzyl chloride	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Bromodichloromethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Bromoform	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Bromomethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
2-Butanone (MEK)	Not detected	ug/L	50	SW/846 8260	MC	04/08/97
Carbon disulfide	Not detected	ug/L	50	SW/846 8260	MC	04/08/97
Carbon tetrachloride	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Chlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Chloroethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Chloroform	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Chloromethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Dibromochloromethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
Dibromomethane	Not detected	ug/L	1	SW/846 8260	MC	04/08/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW/846 8260	MC	04/08/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 5

BA Sample ID: AJ07582

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Diethyl ether	Not detected	ug/L	100	SW846 8260	MC	04/08/97
Ethyl benzene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
2-Hexanone	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Methylene chloride	Not detected	ug/L	1	SW846 8260	MC	04/08/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW846 8260	MC	04/08/97
Styrene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Tetrachloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Toluene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Trichloroethene	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	04/08/97



Sample ID: EQ Rinse 5

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07582

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Vinyl chloride	Not detected	ug/L	1	SW846 8260	MC	04/08/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	04/08/97

DL= Detection Limit as recommended by MDEQ.

Released by: W. J. [Signature]
Date: 4/11/97



TM

Brighton Analytical, Inc.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/02/97

Date Submitted: 03/27/97

Date Sampled: 03/26/97

To: Blasland, Blouck & Lee

185 N.W. Spanish River

Suite 110

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 6

BA Sample ID: AJ07583

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Benzene	Not detected	ug/L	5	SW846 8260	MC	03/28/97
Benzyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromodichloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromoform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon disulfide	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dibromochloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: **20718**
BA Sample ID: **AJ07583**

Project Name: **Flint West Bldg 9**
Project Number: **869-76**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Diethyl ether	Not detected	ug/L	100	SW846 8260	MC	03/28/97
Ethyl benzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Hexanone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methylene chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Styrene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Tetrachloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Toluene	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: EQ Rinse 6

BA Sample ID: AJ07583

Project Number: 869-76

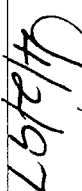
Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Vinyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	03/28/97

DL= Detection Limit as recommended by MDEQ.

Released by:



Date:



Volatiles received in improper container.



TM

Brighton Analytical, Inc.

2105 Pless Drive
Brighton, Michigan 48116
Phone: (810)229-7575 FAX: (810)229-8650

Date: 04/01/97

To: Blasland, Blouck & Lee

Date Submitted: 03/27/97

185 N.W. Spanish River

Date Sampled: 03/21/97

Suite 110

Boca Raton, FL 33431

BA Report Number: 20718

Project Name: Flint West Bldg 9

BA Sample ID: AJ07572

Project Number: 869-76

Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Benzene	Not detected	ug/L	5	SW846 8260	MC	03/28/97
Benzyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromodichloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromoform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Bromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon disulfide	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloroform	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Chloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dibromochloromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: **20718**

Project Name: **Flinn West Bldg 9**

Sample ID: **Trip Blank**

BA Sample ID: **AJ07572**

Project Number: **869-76**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dibromomethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Diethyl ether	Not detected	ug/L	100	SW846 8260	MC	03/28/97
Ethyl benzene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
2-Hexanone	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methylene chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Styrene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Tetrachloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Toluene	Not detected	ug/L	1	SW846 8260	MC	03/28/97



BA Report Number: 20718

Project Name: Flint West Bldg 9

Sample ID: Trip Blank

BA Sample ID: AJ07572

Project Number: 869-76

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichloroethene	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Vinyl acetate	Not detected	ug/L	50	SW846 8260	MC	03/28/97
Vinyl chloride	Not detected	ug/L	1	SW846 8260	MC	03/28/97
Xylenes	Not detected	ug/L	3	SW846 8260	MC	03/28/97

DL = Detection Limit as recommended by MDEQ.

Released by:

Date:

4/2/97

Volatile received in improper container.

207/15 can 1/2 3/26/91

Brighton Analytical, Inc.™

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Fax: (810) 229-8650

1721 Indian Wood Circle
Maumee, OH 43537
Phone: (419) 893-8955
Fax: (419) 893-5576

COMPANY NAME:

BBL

PROJECT NAME:

Flint West Bldg 9

REQUESTED TURNAROUND: (circle one)

Standard: 5-10 business days

Expedited: 48-72 hours (verify with lab)

P. O. NUMBER:

869-76

Brighton ID #

Sample Description

Date Sampled

Time Sampled

of Containers

07583	EQ Rinse 6	3/26/91	11:15	1	2	A
07584	SB-P9-2-3 (0-6")	3/25/91	1700	1	13	S
07585	SB-P9-2-3 (10-12")	3/25/91	1700	1	13	S
07586	TW-P9-2-3	3/25/91	1700	3	15	A

Sample Matrix

8270 Full Suite
8260
10 Michigan Metals
10 MI metals Dissolve
10 MI metals Total

Analysis Requested

REPORT RESULTS TO:

Burbara Sullivan

PHONE:

561 395 4715

FAX:

ABBREVIATIONS FOR MATRIX

S = Solids G = Gas
U = Sludge A = Aqueous

Comments:

Holdall opaque 10
Michigan Metals samples
except TW-P9-4 are all two
(petroleum impurities)
Doubtful lead EQ Rinse 5 -
analyse the other EQ Rinse
samples.

⊗ TW = aqueous SB = solid samples

MI = Michigan
10 metals arsenic, barium,
cadmium, chromium, copper, lead,
mercury, iron, selenium, silver,
zinc

Please fill out the Chain of Custody completely and return. Incorrect or incomplete information will result in a "hold" on all analyses

(1) Relinquished by:	(1) Date/Time:	(1) Received by:	(1) Date/Time:
BBL	3/27/91	76, T, J. L.	3/27/91
(2) Relinquished by:	(2) Date/Time:	(2) Received by:	(2) Date/Time:
(3) Relinquished by:	(3) Date/Time:	(3) Received by:	(3) Date/Time:

20718

2/2 3/26/97

Brighton Analytical, Inc.™

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Fax: (810) 229-8650

1721 Indian Wood Circle
Maumee, OH 43537
Phone: (419) 893-8955
Fax: (419) 893-5576

Analysis Requested

REPORT RESULTS TO:

Barbara Sullivan

COMPANY NAME:

BRL

PROJECT NAME:

Flint West Bldg

REQUESTED TURNAROUND: (circle one)

Standard: 10 business days

Expedited: 5 business days

Expedited: 48-72 hours (verify with lab)

Rush: 24 hours (verify with lab)

PROJECT NUMBER:

86976

P. O. NUMBER:

Brighton ID #

Date Sampled

Time Sampled

of Containers

AI

07572

Trip Blank

3/21/97

1

A

07573

Duplicate 5

3/26/97

1026

4

A

07574

TW-P9-5-1

3/26/97

1029-3260
1024-metals
1024-2170

2

S

07575

SB-P9-5-1

3/26/97

1130

1

A

07576

TW-P9-5-2

3/26/97

1

A

07577

SB-P9-3-1 (4-16)

3/25/97

1320

1

S

07578

TW-P9-3-2

3/25/97

1448

1

A

07579

SB-P9-3-2 (10-12)

3/25/97

1350

1

S

07580

EQ Rinse 3

3/25/97

1650

1

A

07581

EQ Rinse 4

3/25/97

1650

1

A

07582

EQ Rinse 5

3/26/97

945

1

A

Please fill out the Chain of Custody completely and return. Incorrect or incomplete information will result in a "hold" on all analyses.

(1) Relinquished by:

[Signature]

(1) Date/Time:

3/27/97

842

(2) Relinquished by:

[Signature]

(2) Date/Time:

(3) Relinquished by:

(3) Date/Time:

Sample Matrix

8270 FULLSUITE

8260

10 Michigan Metals

10 MI metals Dissolved

10 MI metals Total

METHOD #

METHOD #

METHOD #

PHONE:

561 395 4715

FAX:

ABBREVIATIONS FOR MATRIX

S = Solids G = Gas

U = Sludge A = Aqueous

Comments:

ⓧ Hold TW-P9-5-1 (8270)

ⓧ Hold the 8260, 8270

10 MI metals for SB-P9-5-1

ⓧ Hold TW-P9-3-2 (8260)

Sample.

ⓧ Hold 8260 on SB-P9-3-1 (4-16)

and SB-P9-3-2 (10-12)

ⓧ Hold all aqueous 10 Michigan

metals samples except TW-P9-4

one and two (CF/Head + WH/Head)

ⓧ only hold EQ Rinse 5 - the

only EQ Rinse

3/27/97 0:50:00 samples

(2) Date/Time:

(3) Date/Time:

20718

2/2 3/26/97

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Phone: (419) 893-8955
Fax: (419) 893-5576

COMPANY NAME:

BRL

PROJECT NAME:
First West 3199

PROJECT NUMBER:

86976

P. O. NUMBER:

Sample Matrix

8270 FULLSUITE
8260
10 Michigan Metals
10 MI metals Dissolved
10 MI metals Total

Analysis Requested

REPORT RESULTS TO:

Barbara Sullivan

PHONE: 561 395 6715
FAX: 561 395 6715

ABBREVIATIONS FOR MATRIX

S = Solids G = Gas
U = Sludge A = Aqueous

Comments:

⊗ Hold TW-P9-S-1 (8270)
⊗ Hold HNO 8260, 8270
10MI metals for SB-P9-S-1
⊗ Hold TW-P9-3-2 (8260)
Sample.

⊗ Hold 8260 on SB-P9-3-1
(14-16)
and SB-P9-3-2 (10-12)
⊗ Hold all aqueous 10 Michigan
metals sample except TW-P9-4
one and two (CF, filtered + unfiltered)
⊗ only hold EQ Rinse 5
one and two
one and two
one and two

RUN VOLATILES-8260

"hold" on all analyses

(1) Date/Time: 3/27/97 0:50 am

(2) Date/Time:

(3) Date/Time:

Brighton ID #	Sample Description	Date Sampled	Time Sampled	# of Containers
---------------	--------------------	--------------	--------------	-----------------

07572 TRIP Blank 3/21/97 1130 1 A

07573 Duplicate 5 3/26/97 1026 4 A

07574 TW-P9-S-1 3/26/97 1029-8260 2 A

07576 TW-P9-S-2 3/26/97 1130 1 A

07577 SB-P9-3-1 (14-16) 3/25/97 1320 1 A

07578 TW-P9-3-2 3/27/97 1740 1 A

07579 EQ Rinse 3 3/25/97 1650 1 A

07580 EQ Rinse 3 3/25/97 1650 1 A

07581 EQ Rinse 4 3/25/97 1650 1 A

07582 EQ Rinse 5 3/25/97 1650 1 A

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses

(1) Relinquished by: [Signature]

(1) Date/Time: 3/27/97

842

(2) Received by:

766 T. [Signature]

(2) Date/Time:

Relinquished by:

(2) Date/Time:

(3) Received by:

(3) Date/Time:

2/2 3/26/97

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Maunee, OH 43537
Phone: (419) 893-8955
Fax: (419) 893-5576

COMPANY NAME:

MBL

SUBJECTS TITLED AROUND: (circle one)

Standard: 5-10 business days

Unedited: 5 business days

Expedited: 48-72 hours (verify with lab)

Bush: 24 hours (verify with lab)

PROJECT NAME:

PROJECT NUMBER:

P. O. NUMBER:

Brighton ID #	Sample Description	Date Sampled	Time Sampled	# of Containers
				1

07573	TRIP Blank	3/21/97		1
07573	Duplicate 5	3/26/97		1
07574	TW-P9-5-1	3/26/97	1026	4
			1029-3240	
			1035-3270	
07576	TW-P9-5-2	3/26/97	1130	1
07577	SA-P9-5-1 (1-16)	3/25/97	1320	1
07578	TW-P9-5-3	3/26/97	1740	1
07579	SA-P9-5-2 (1-16)	3/26/97	1330	1
07580	EQ Rinse 3	3/25/97	1650	1
07581	EQ Rinse 4	3/25/97	1650	1
07582	EQ Rinse 5	3/26/97	940	1

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information may result in the loss of the sample.

(1) Relinquished by: *Me*

Acquished by:

(1) Date/Time:	3/27/97	842
(2) Date/Time:		
(3) Date/Time:		

Analysis Requested

REPORT RESULTS TO:

Barbara Sullivan

PHONE: 501 395 6715
FAX: 501 395 6715

ABBREVIATIONS FOR MATRIX

U = Sludge A = Aqueous

Comments:

☒ Hold TW-A-5-1 (8270)	Comments.
--	-----------

⑧ Hold H₂O 326, 3270 +
10mI metal for SS-995-1

Sample. (X) Hold TW-Pg-3-2 (8266)

(X) Hold 8260 on 58-09-3-1 (14-16)

hold all aqueous 10 ml in can
in 2 samples except 10 ml - 10-4

one and two (F1) + unfilled

hold" on all analyses

over 100
2200
2200

(1) Date/Time: 8:50 am 5/15/92

3/2/11	(2) Date/Time:
--------	----------------

(3) Date/Time:

20418

212 316/47

Brighton Analytical, Inc.™

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Fax: (419) 893-5576

COMPANY NAME:

PROJECT NAME:

BRL

Flint West Bldg 9

REQUESTED TURNAROUND: (circle one)

PROJECT NUMBER:

Standard: 10 business days

Expedited: 5 business days

Expedited: 48-72 hours (verify with lab)

Rush: 24 hours (verify with lab)

P. O. NUMBER:

86976

Sample Matrix

8270 FULLSUITE
8260
10 Michigan Metals
10 MI metals Dissolved
10 MI metals Total

Analysis Requested

REPORT RESULTS TO:

Barbara Sullivan

PHONE:

FAX: 561 395 6715

ABBREVIATIONS FOR MATRIX

S = Solids G = Gas

U = Sludge A = Aqueous

Comments:

⊗ Hold TW-A-5-1 (8270)

⊗ Hold Hn 8260, 8270
10mc metals for SG-A-5-1

⊗ Hold TW-A-3-2 (8260)

⊗ Hold 8260 on SB-A-3-1
(4-16)

⊗ Hold all aqueous 10 Michigan
metals samples except TW-A-4
one ad two CFI/Heed + unfiltered

⊗ only hold EQ Rinse 5 - The
only EQ Rinse

Please fill out the Chain of Custody completely and return. Incorrect or incomplete information will result in a "hold" on all analyses

Brighton ID #	Sample Description	Date Sampled	Time Sampled	# of Containers
07572	TRIP Blank	3/21/97		1 A
07573	Duplicate 5	3/26/97		1 A
07574	TW-A-5-1	3/26/97	1026 1029-8260 1024-metals 1025-2270	4 S A
07575	SB-A-5-1	3/26/97		2 S
07576	TW-A-5-2	3/26/97	1130	1 S A
07577	SB-A-3-1 (4-16)	3/25/97	1320	1 S
07578	TW-A-3-2	3/25/97	1448	1 A
07579	SB-A-3-2 (10-12)	3/25/97	1350	1 S
07580	EQ Rinse 3	3/25/97	1650	1 A
07581	EQ Rinse 4	3/25/97	1650	1 A
07582	EQ Rinse 5	3/26/97	945	1 A

(1) Relinquished by:	(1) Date/Time:	(1) Received by:	(1) Date/Time:
John M. Smith	3/22/97 842	76.7 p.d.	3/22/97 0:50 am
(2) Relinquished by:	(2) Date/Time:	(2) Received by:	(2) Date/Time:
(3) Relinquished by:	(3) Date/Time:	(3) Received by:	(3) Date/Time:

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Maumee, OH 43537
Phone: (419) 893-8955
Fax: (419) 893-5576

COMPANY NAME:

BBL

PROJECT NAME:

First West Bldg 9

REQUESTED TURNAROUND: (circle one)

Standard: 5-10 business days

Expedited: 5 business days

Rush: 24 hours (verify with lab)

PROJECT NUMBER:

3619-76

P. O. NUMBER:

Standard: 5-10 business days

Brighton ID #

Sample Description

Date Sampled

Time Sampled

of Containers

AS

EQ Runsc 6

3/26/97

11:15

1

A

SB-A-2-3 (0-6")

3/25/97

1700

1

S

SB-A-2-3 (10-12")

3/25/97

1700

1

S

SB-A-2-3

3/25/97

1700

3

A

Sample Matrix

8270 Full Suite

8260

10 michigan Metals

10 MI metals Dissolve

10 MI metals Total

Analysis Requested

REPORT RESULTS TO:

Burton Sullivan

PHONE: 561 395 4715

FAX: 561 395 4715

ABBREVIATIONS FOR MATRIX

S = Solids G = Gas

U = Sludge A = Aqueous

Comments:

Holdall aqueous 10

Michigan Metals sample

except TW-A-4 are all the

(pittsburgh-united)

Don't hold EQ Runsc 5-

analyse the other EQ Runsc

sample

SB = aqueous SB = solid

MI = michigan

10 metals are arsenic, barium,

cadmium, chromium, copper,

mercury, lead, selenium, silver

Zinc

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses

(1) Relinquished by:

(1) Date/Time:

3/27/97

942

(1) Received by:

761-761

(1) Date/Time:

3/27/97

8:50 am

(2) Relinquished by:

(2) Date/Time:

(2) Received by:

(2) Date/Time:

(3) Relinquished by:

(3) Date/Time:

(3) Received by:

(3) Date/Time: