BROWNFIELD REDEVELOPMENT ASSESSMENT REPORT

FOR

MARITIME HERITAGE CENTER

301 NORTH WATER STREET
BAY CITY, MICHIGAN 48708

MIB000000146

SEPTEMBER 18, 2008

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EXECUTIVE SUMMARY

The Michigan Department of Environmental Quality (MDEQ) conducts Brownfield Redevelopment Assessments (BFRAs) as part of its Site Specific Assessment task of its 128A Brownfield Cooperative Agreement with the United States Environmental Protection Agency. BFRAs are conducted to provide information on brownfield properties where potential environmental contamination may be acting as an impediment to future redevelopment activities. They are also conducted to determine if the property is a facility as defined in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and to provide recommendations for addressing issues during redevelopment. A facility is an area that contains a hazardous substance at a concentration that exceeds Generic Residential Cleanup Criteria (Criteria) established in Section 20120a(1)(a) or (17) of Part 201. File and data searches, and environmental sample collection and analyses are used to obtain the needed information to make the determination and recommendations. This report presents the findings of the Maritime Heritage Center property (Property) BFRA.

This BFRA report is written for the purpose of providing information on the Property that will encourage redevelopment in a way that ensures protection of the public health, safety, welfare, and the environment. This information is intended for use by the local unit of government, the MDEQ, potential developers, and anyone who may become involved in the future redevelopment of the Property. The report includes a summary of the Property background, assessment procedures, results, conclusions, and recommendations. The conclusion as to whether the property is a facility as defined in Part 201 is made by comparison of sample concentrations of hazardous substances to the Generic Residential Cleanup Criteria established under Part 201. This report also compares the sample concentrations to other Generic Industrial and Commercial Cleanup Criteria to provide additional information to promote appropriate redevelopment activities.

Staff of the MDEQ has considered historical uses of the Property in its evaluation of data for this BFRA. The Property has a potential for being contaminated due to a variety of historical uses dating to the early 1900s. Previous uses of the Property include lumber, waste disposal, coal, masonry supply, redi-mix concrete, and aggregate storage. The city of Bay City (City) requested the MDEQ to conduct a BFRA of the Property in a letter dated September 18, 2007. The Property is owned by the City and is located near the City's center, along the east bank of the Saginaw River.

Staff of the MDEQ conducted field activities from November 5 to 7, 2007. This included the collection of 11 surficial soil, 14 soil boring, and 7 groundwater samples. Staff also photographed general Property conditions and obtained Global Positioning System (GPS) data to determine sample and feature locations. In addition, staff completed a groundwater elevation survey using the temporary monitoring wells installed during the fieldwork.

Analysis of the samples detected the presence of several Contaminants of Concern (COCs), those hazardous substances found in samples at concentrations exceeding Criteria. These included 9 volatile organic compounds (VOCs) (benzene, toluene, ethylbenzene, xylenes, n-butylbenzene, sec-butylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene); 4 semi-volatile organic compounds (SVOCs) (naphthalene, 2-methylnaphthalene, fluoranthene, and benzo(a)pyrene); and 14 inorganic compounds (antimony, arsenic, total chromium, cobalt, copper, cyanide, iron, lead, manganese, mercury, molybdenum, selenium, vanadium, and zinc). With the exception of cyanide in one surficial soil sample, these COCs were all found in subsurface soils and in groundwater samples. Due to the elevated levels of contaminants above Part 201 Generic Residential Cleanup Criteria, MDEQ staff has determined that the Property meets the definition of a facility as defined in Part 201.

VOC COCs were found in two areas of the Property in a deeper soil sample and in groundwater samples. Soil boring SB-13 contained all nine VOC COCs, and was the only soil sample that contained VOC COCs. It is located in the south-central part of the Property within the low area shown in Figure 2B. TMW-3, a temporary monitoring well near this soil boring location, contained benzene, a COC found in SB-13. An evaluation of historical uses in this area reveals that this area may have been a part of the Saginaw River once and was later filled in. Also, a 1950 aerial photograph shows a dark spot in the location of SB-13, possibly stained soil. See Figure 2A and Appendix A. Two VOC COCs, benzene and ethylbenzene, were also found in temporary monitoring well TMW-6, located in the north-central part of the Property. This area is near several “gasoline launch houses” noted on a 1912 Sanborn map. VOCs exceeded Criteria in four different exposure pathways: drinking water (DW), groundwater surface water interface (GSI) (protection of surface waters), and two air pathways (soil volatilization to indoor air inhalation and ambient air volatile soil inhalation).

SVOC COCs were found in two soil boring samples and in one temporary monitoring well sample. SB-13 contained 2-methylnaphthalene and naphthalene. SB-05 COCs contained benzo(a)pyrene and fluoranthene. This location is near a former dumping ground. TMW-6 contained naphthalene. SVOCs exceeded Criteria in two exposure pathways: GSI and direct contact (DC).

Inorganic COCs were common in deeper soil samples and in groundwater samples. Cyanide was a COC in only one of the 11 surficial soil samples. Antimony, total chromium, cyanide, iron, lead, mercury, selenium, and zinc were COCs in 10 of the 14 soil boring samples. Arsenic, total chromium, copper, iron, lead, manganese, vanadium, and zinc were COCs in seven groundwater samples collected. These exceeded Criteria in the DW, GSI, and DC pathways.

Based on the findings of the BFRA, MDEQ staff recommends the following before or during redevelopment of the Property: prohibit drinking water use of the groundwater;

prevent activities that exacerbate the flushing of water through contaminated deep soils and increase the movement of groundwater towards the Saginaw River; use caution when excavating subsurface soils to minimize exposure and direct contact risks; conduct additional evaluation of VOCs in subsurface soils near soil boring SB-13 to prevent exposures due to volatilization of VOCs into future buildings or ambient air; and meet “due care” obligations specified in Section 7a of Part 201 during redevelopment activities which include not exacerbating the existing contamination, exercising due care to assure there are not unacceptable exposures, and taking reasonable precautions against the reasonably foreseeable activities of third parties.

Further information concerning Part 201 Cleanup Criteria, due care provisions, and remedial and/or removal activities may be obtained from the MDEQ Remediation and Redevelopment Division, Saginaw Bay District Office at 989-686-8025.

INTRODUCTION

The Michigan Department of Environmental Quality (MDEQ) was contracted via a cooperative agreement (CA) with the United States Environmental Protection Agency (U.S. EPA) to conduct Brownfield Redevelopment Assessments (BFRAs). A BFRA was requested for the Maritime Heritage Center property (Property) by the city of Bay City (City) to assist in their redevelopment plans for the Property. BFRAs are performed to fulfill the Site Specific Assessment (SSA) task in the Section 128(a) CA. The Section 128(a) CA was entered into between the MDEQ and the U.S. EPA as a result of the "Small Business Liability Relief and Brownfield Revitalization Act" amendments to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Title 42 of the United States Code, Section 9601).

A brownfield property is a real property, usually an abandoned, idled, or under-utilized industrial or commercial property, or a portion thereof, where the presence or potential presence of a hazardous substance, pollutant, or contaminant may be acting as an impediment to expansion, redevelopment, or reuse of the Property. Properties targeted for the SSA task are those brownfield properties that have an active potential for expansion, redevelopment, or reuse.

BFRAs are intended to provide information on such properties where potential environmental contamination may be acting as an impediment to future redevelopment activities. MDEQ staff conduct environmental investigations of brownfield properties to determine the types and locations of past and present activities, potential relevant migration pathways of concern, types and concentrations of potential contaminants, and the need for remedial and/or removal actions on the Property. These findings are summarized in this BFRA report along with the determination of whether the Property meets the definition of a facility as defined in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201). A facility is an area that contains a hazardous substance at a concentration that exceeds residential cleanup criteria established in Section 20120a(1)(a) or (17) of Part 201.

As part of the BFRA, property specific environmental migration pathways are evaluated for potential exposure routes and relevancy with regard to Part 201. These pathways are evaluated to determine the potential risks posed by elevated levels of hazardous substances in those pathways. As stated in Part 201, a relevant pathway means an exposure pathway that is reasonable and relevant because there is a reasonable potential for exposure to a hazardous substance to occur to a human or non-human receptor from a source or release of a hazardous substance. The components of an exposure pathway are a source or release of a hazardous substance, an exposure point, an exposure route, and, if the exposure point is not the source or point of release, a transport medium. The existence of an exposure control measure, exposure barrier or other similar feature, such as a municipal water supply, does not automatically make an exposure pathway irrelevant.

A BFRA of the Property was conducted in accordance with the CA with the U.S. EPA. The BFRA included: file and information searches; a reconnaissance inspection of the Property; the collection of surficial soil, subsurface soil, and groundwater samples; Global Positioning System (GPS) data collection of sample locations and property features; a well survey; and, the collection of site feature photographs.

PROPERTY BACKGROUND

Property Description

The 8.57 acre Property is located near the center of the City, on the east bank of the Saginaw River (City of Bay City, 2007). Its address is 301 N. Water Street. Latitude/longitude coordinates to the center of the Property are 43° 35' 36" North/ 83° 53' 32" West. The Property's parcel number is 09-13-28-101-002. See Figure 1 for the Property Location map.

Land uses surrounding the Property are primarily commercial and undeveloped. A parking lot is located to the north of the Property, and is used by occupants of the F.P. Horak Building to the northeast. Two or three commercial buildings are located east of the Property across N. Water Street. City Hall is another block to the east. A Consumers Power building and power substation is located to the south near the southeast corner of the Property. Land to the south of the Property contains power transmission towers apparently used by Consumers Power. Finally, the Saginaw River is located west of the Property.

Property History

The following history is according to AKT Peerless 2002, MDHAL 2007a/b, MSU 2007, and MDEQ file information. See Figure 2A for a map showing some of the historical features that could be identified from the Property. Appendix A contains a series of maps along with historical features from various sources.

By 1912, the Property ownership is uncertain while its usage appears to have been associated with lumber and city waste disposal. A 1912 Sanborn Fire Insurance Company map shows the northern part of the Property served as a city dumping ground. The map shows wood piles stored on the south side of the Property. Property ownership was not indicated and no permanent structures were shown. A cut into the river bank was shown as intruding more than halfway into the Property from the river.

Similar cuts and other features were shown on the 1912 Sanborn map along the river north and east of the Property. The cuts were used as slips for logging operations. A slip immediately to the north, adjacent to the Bay City Gas Co. Coal Gas Plant, contained gasoline launch houses. These were located along what is now 9th Street. The gas plant also contained a chemical laboratory and an ammonia tank along its south side, which would be just north of the Property's northeast corner. A 200,000 cubic feet gasometer tank was shown located just east of the Property's northeast corner.

Between 1921 and about 1981, the Robert Gage Coal Company operated at the Property. The company acquired the Property in 1921, and used the location as a retail coal and masonry supply yard. Between 1938 and 1950, a redi-mix concrete plant was built on the Property. Coal storage continued through the 1960s, while aggregate storage lasted longer. The company operated there until about 1980 or 1981.

Aggregate or concrete operations continued at the Property between about 1980 and 2002. Fisher Brothers acquired the Property from the Robert Gage Coal Company sometime from 1980 to 1983. A Clawson Concrete Co. was in operation there in 1981. Bay Aggregate Inc. operated a concrete business there between 1984 and 2002. In December 2000, the Property ownership changed to Port Fisher, LLC. Finally, in January 2002, the Property was warranty deeded to the City.

After acquiring the Property in 2002, the City completed several redevelopment actions at the Property. These included: environmental testing and sampling; completing a Baseline Environmental Assessment in 2002; $771,000 spent to demolish buildings and structures from 2005 to 2006; and $14,000 spent on geotechnical testing in 2007.

In September 2007, the City requested the MDEQ to conduct a BFRA at the Property. The BFRA was requested to assist the City in their redevelopment plans for the Property. The City owns the Property, and is planning on redeveloping it into a maritime heritage center. This center is envisioned to include a boat building and repair workshop, a blacksmith shop, a rope and sail making facility, a nautical book shop, a restaurant, and a gift shop with artifacts and model boats. This center is part of a larger redevelopment known as the Uptown at RiversEdge Development. These facilities, once completed, should help draw more visitors and permanent residents to the area. It should help increase the number of jobs in the area as well. This request resulted in the investigation of this property under the BFRA program.

PROCEDURES AND RESULTS

Reconnaissance Inspection Observations

Staff of the MDEQ conducted a property reconnaissance walk-over at the Property on October 2, 2007. The purpose of the reconnaissance was to determine the type, location, and quantity of observable areas of contamination, and to gather information to be used in development of the BFRA sampling plan.

The property reconnaissance involved a three-person investigative team consisting of two MDEQ project managers and a representative from the City. The team documented the structure(s) and debris types located throughout the Property and identified the environmental concerns associated with each area of concern on the Property. See Figure 2B for the Current Property Features map. Photographs of the Property were taken during the BFRA and are provided in Appendix B.

Known areas of potential concern include the following based on the Property audit and reconnaissance field notes:

- Stained areas near the foundation of the former truck tire washing area,
- Stained areas on the weathered asphalt,
- Low areas where surface runoff likely drained to,
- Areas along the east side of the Property adjacent to the former above ground storage tanks and the former plating facility,
- The northeast corner, where slag piles used to be, and
- An area near the former Bay Aggregate Inc. repair shed where past dumping may have occurred.

See Figure 2B for the Current Property Features map.

Sampling Procedures and Results

Field staff completed field sampling from November 5 to 7, 2007. This included the collection of 11 surficial soil, 14 soil boring, and 7 groundwater samples from suspected areas of contamination at the Property. The sample locations were surveyed in by utilizing a GPS.

The samples were collected in order to:

- Determine the levels of U.S. EPA Target Compound List compounds (organic compounds) and Target Analyte List analytes (inorganic elements) which may be present at the Property.

- Identify potential contamination in shallow and subsurface soils and groundwater on the Property.

- Identify potential contaminant source areas.

- Ascertain potential contaminant migration pathways from possible source areas.

- Identify health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or natural resources associated with the different sample media.

- Evaluate and determine whether the Property is a facility in accordance with the definition found in Part 201, Section 20101(o).

Standard MDEQ sample collection, preservation, and decontamination procedures, as outlined in the work plan, were followed for all samples. Sample collection and preservation followed the MDEQ Remediation and Redevelopment Division (RRD) Operational Memorandum 2, Attachments 4-6. Soil samples analyzed for volatile organic compounds (VOCs) were field preserved with methanol. Remaining soil sample portions were not chemically preserved. Water samples analyzed for VOCs were field preserved with hydrochloric acid. Water samples analyzed for semi-volatile organic (SVOC)/pesticide/polychlorinated biphenyl (PCB) compounds were not field preserved. Water samples analyzed for total metals were field preserved with nitric acid to a hydrogen ionization potential (pH) of less than two and water samples analyzed for amenable cyanide were field preserved with sodium hydroxide to a pH of more than twelve. Soil and water samples were analyzed for organic compounds and inorganic analytes, consistent with the MDEQ RRD Operational Memorandum 2, Attachment 1, utilizing the following methods:

Compound/Analyte	**Analytical Method**	
	Soil	**Water**
Volatile Organic Compound	8260	8260
Semi-volatile Organic Compound	8270	8270
Pesticides	8081	8081
PCBs	8082	8082
Antimony, Arsenic, Barium, Beryllium, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc	6020	6020/200.8
Cyanide	9010	9010/335.2
Iron	6010	6010/200.7
Mercury	7471	7470/245.1

Field staff followed the MDEQ quality assurance/quality control procedures as outlined in the Quality Assurance Project Plan for Site Assessment and Brownfield Activities (MDEQ, 2003). After collecting the samples, staff labeled and placed the samples in insulated sample shipment coolers. The interior of the shipment coolers were kept at a

temperature of approximately 4° Celsius with ice and delivered to the MDEQ Laboratory. The Team Leader transported the samples to the MDEQ Laboratory for analysis. Laboratory analytical data for all the sample analyses are provided in Appendix C.

After sample analysis, the MDEQ Laboratory sent results to the Team Leader, who then began processing the data for this report. Contaminants exceeding the Generic Cleanup Criteria (Criteria) promulgated pursuant to Part 201 will be described in the following sections. Analytical summaries shown in Tables 2, 4, and 6 include all detected parameters, but highlight Criteria exceedances. Any sample concentrations of naturally occurring inorganic analytes above Criteria but equal to or below statewide default background levels are not considered exceedances of Part 201 Criteria in this report. The current Part 201 Criteria are provided in Appendix D, and include an evaluation of soil background values and some criteria for protecting surface waters that require calculation to determine. It should be noted that with regard to the total chromium analyses, only total chromium was analyzed. According to Part 201 rules, the total concentrations are compared to the hexavalent chromium criteria.

Two soil samples were designated as background samples and evaluated as background samples. The Team Leader chose SS-01 as the designated background sample for surficial soils, and SB-01 for subsurface soils. These were not collected in a statistical manner to determine a property specific background, but to evaluate the potential for migration of contaminants onto the Property and the potential for naturally occurring elevated levels of contaminants.

Staff of the MDEQ evaluated the surficial soil and soil boring sample results with respect to soil background data found in the Michigan Background Soil Survey 2005 (MBSS), (MDEQ 2005). See Appendix D, Tables 4 and 5, respectively. Report Tables 2 and 4 show exceedances of Criteria for all surficial soil and soil boring samples using statewide default background levels for inorganic parameters found in the Part 201 Criteria tables found in Remediation and Redevelopment Operational Memo 1 (MDEQ 2006a). The MBSS states that its data should not be used to set site-specific cleanup criteria (MBSS, page 2). Since the Property is still in the early assessment stage, staff used professional judgment (see Part 201, Section 20102(m)) along with data found in the MBSS to determine whether certain inorganic parameters are naturally occurring or not.

Some inorganic analyte criteria require using the hardness value of the receiving water body to determine specific Groundwater Surface Water Interface and Groundwater Surface Water Interface Protection Criteria. Based on discussions with staff from the Saginaw Bay District Office, a hardness value of 257 was used for the Saginaw River in the area of the Property (MDEQ 2008b).

Surficial Soil Samples

The intent of the surficial soil sampling was to identify potentially contaminated surficial soil or source areas, to determine the potential for possible contaminant migration, and to determine health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, and resources associated with the shallow soils at the Property. To accomplish this intent, ten samples and one duplicate sample (SS11) were collected during the BFRA. All samples were collected using stainless steel trowels from depths ranging between two and eight inches below the ground surface according to the procedures outlined in the work plan.

See Figure 3 for a map showing sample locations. For a description of sample locations and sample characteristics, refer to Table 1. Table 2 provides a summary of the sample analytical results that exceed Part 201 Criteria and also lists the Criteria values that were exceeded.

Analysis of the surficial soil samples collected during the BFRA detected the presence of inorganic analytes at concentrations above Part 201 Criteria. The following lists the Criteria exceedances for surficial soil samples and the analytes and samples with concentrations in excess of Criteria. The full extent of the contaminants in the surficial soils was not delineated during the BFRA of the Property.

Mercury only exceeded Criteria in SS-03. Its concentration was 0.15 milligrams per kilogram (mg/kg), which exceeded the MBSS statewide mean to 2 standard deviations (2SD) (0.08), but was below the statewide maximum of 0.62 mg.kg. Mercury is likely within background. Selenium exceeded Criteria in five samples (SS-01, SS-02, SS-03, SS-06, and SS-11 at concentrations ranging from 0.42 to 0.68 mg/kg). These concentrations are all less than the MBSS statewide maximum of 1.5 mg/kg. Cyanide only exceeded Criteria in SS-06 at 1.0 mg/kg which is above the statewide default background level. The MBSS does not contain cyanide data.

Exceedances above the Soil Groundwater Surface Water Interface Protection Criteria:

The criteria in this exposure pathway represent concentrations of hazardous substances in soils that may leach from the soil into groundwater at concentrations in the groundwater exceeding generic Groundwater Surface Water Interface Criteria.

Inorganic constituents in surficial soil samples exceeded only Criteria in this pathway, but most may be within background concentrations. Cyanide, mercury, or selenium were found in four samples and a duplicate at concentrations that exceeded their respective Criteria concentrations if the statewide default background values were used. This can be seen in Table 2. **Cyanide** was detected above its 0.39 mg/kg Criterion (default background) only in sample SS-06 at a concentration of 1.0 mg/kg. **Mercury** was detected above its 0.13 mg/kg Criterion (default background) only in sample SS-03

at a concentration of 0.15 mg/kg. As noted above in the soil background evaluation, this sample concentration was below the statewide maximum concentration of 0.62 mg/kg for sandy soils found in the MBSS. **Selenium** was detected above its 0.41 mg/kg Criterion (default background) in samples SS-01, SS-02, SS-03, SS-06, and SS-11 (duplicate of SS-02) at concentrations ranging from 0.42 to 0.68 mg/kg. However, four of the sample concentrations are less than the MBSS statewide mean to 2 standard deviations of 0.56 mg/kg. The highest concentrations of 0.64 mg/kg at SS-11 and 0.68 mg/kg at sample SS-03 were still less than the MBSS statewide maximum value of 1.5 mg/kg. Therefore, only cyanide remains as a suspected COC.

Soil Boring Samples

The intent of the soil boring sampling was to identify potential contamination in the deep soils, to determine if any downward migration of contamination has occurred from probable source areas, and to determine potential health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or resources associated with the deep soils at the Property. To accomplish this intent, 14 samples were collected from 14 separate boring locations during the BFRA. All samples were collected utilizing a Geoprobe® rig with a high density polyethylene lined Macro-Core® sampler at depths ranging from 2.2 to 14.9 feet below the ground surface according to the procedures outlined in the work plan. These procedures included screening the core with a photoionization detector to help determine the presence of volatile organic compounds and potential sampling points within the cores.

Figure 4 is a map showing soil boring sample locations. Table 3 gives descriptions of the soil boring locations, lithology, and sample characteristics. Table 4 provides a summary of the soil boring sample analytical results that exceed Part 201 Criteria and also lists the Criteria values that were exceeded.

Analysis of the soil boring samples collected during the BFRA detected the presence of organic compounds and inorganic analytes at concentrations above Part 201 Criteria. The following lists the Criteria exceedances for soil boring samples and the compounds/ analytes and samples with concentrations in excess of Criteria. The horizontal and vertical extent of the contaminants in the deep soils was not fully delineated during the BFRA of the Property.

Eleven inorganic parameters, including cyanide, exceeded Criteria in subsurface soil samples. Of these, three were below MBSS concentrations. Arsenic concentrations were below the lobe-specific mean to 2SD of 26 mg/kg. Cobalt concentrations were all less than the MBSS statewide maximum of 8.7 mg/kg. Molybdenum concentrations were less than all the MBSS values of less than 5 mg/kg. One parameter, total chromium, had a concentration equal to the MBSS statewide maximum of 50 mg/kg. These four inorganic soil constituents are probably within background. All the other parameters (antimony, cyanide, iron, lead, mercury, selenium and zinc) had maximum

concentrations that exceeded MBSS values, and should therefore be considered true exceedances of Criteria.

Exceedances above the Soil Residential and Commercial I Drinking Water Protection Criteria:

These criteria represent concentrations of hazardous substances in soils that may leach from the soil into groundwater at concentrations in the groundwater exceeding generic Residential and Commercial I Drinking Water Criteria.

Several organic compounds or inorganic analytes were detected in soil boring samples at concentrations that exceeded their criteria in eight of the 14 samples collected, as follows:

- Eight VOCs exceeded their Criteria only in sample SB-13. These included: **Benzene** detected above its 100 micrograms per kilogram (ug/kg) Criterion at a concentration of 51,000 ug/kg; **n-Butylbenzene** detected above its 1,600 ug/kg Criterion at a concentration of 20,000 ug/kg; **sec-Butylbenzene** detected above its 1,600 ug/kg Criterion at a concentration of 9,400 ug/kg; **Ethylbenzene** detected above its 1,500 ug/kg Criterion at a concentration of 19,000 ug/kg; **n-Propylbenzene** detected above its 1,600 ug/kg at a concentration of 58,000 ug/kg; **1,2,4-Trimethylbenzene** detected above its 2,100 ug/kg Criterion at a concentration of 11,000 ug/kg; **1,3,5-Trimethylbenzene** detected above its 1,800 ug/kg Criterion at a concentration of 4,600 ug/kg; and **Xylenes** detected above its 5,600 ug/kg Criterion at a concentration of 31,500 ug/kg.
- One SVOC also exceeded its Criterion only in sample SB-13. **2-Methylnaphthalene** was detected above its 57,000 ug/kg Criterion at a concentration of 66,000 ug/kg.
- Several inorganic analytes were detected in eight soil boring samples at concentrations exceeding their Criteria when statewide default background values were used, and were also above MBSS background levels. These included:
    - **Antimony** detected above its 4.3 mg/kg Criterion in samples SB-05 and SB-07 at concentrations of 8.0 and 4.4 mg/kg, respectively;
    - **Cyanide** detected above its 4.0 mg/kg Criterion in samples SB-07 and SB-09 at concentrations of 7.3 and 17 mg/kg, respectively;
    - **Iron** detected above its 12,000 mg/kg Criterion (default background) in samples SB-03, SB-05, SB-07, SB-09 and SB-14 at concentrations ranging between 13,000 to 92,000 mg/kg;
    - **Lead** detected above its 700 mg/kg Criterion in sample SB-05 at a concentration of 1,300 mg/kg;
    - **Mercury** detected above its 1.7 mg/kg Criterion in samples SB-03 and SB-05 at concentrations of 3.2 and 2.5 mg/kg, respectively; and
- Some inorganic analytes were detected at concentrations above their Criteria when statewide default background values were used, but were equal to or below MBSS values. These included:

- **Arsenic** detected above its 5.8 mg/kg Criterion (default background) in samples SB-01, SB-03, SB-05, SB-07, SB-09, SB-10, SB-13 and SB-14 at concentrations ranging from 6.4 to 25 mg/kg, but all the concentrations were below the MBSS lobe-specific mean to 2SD;
- **Total Chromium** detected above its 30 mg/kg Criterion in only sample SB-01 at a concentration of 50 mg/kg, but its sample concentration was equal to the MBSS statewide maximum of 50 mg/kg;
- **Cobalt** detected above its 6.8 mg/kg Criterion (default background) in samples SB-03 and SB-07 at concentrations of 7.4 and 7.0 mg/kg, respectively, but these concentrations were below the MBSS statewide maximum of 8.7 mg/kg;
- **Molybdenum** detected above its 1.5 mg/kg Criterion in samples SB-03, SB-05 and SB-07 at concentrations ranging between 1.7 to 3.4 mg/kg, but these concentrations were below the MBSS value of less then 5.0 mg/kg.

Exceedances above the Soil Industrial and Commercial II, III, and IV Drinking Water Protection Criteria:

These Criteria represent concentrations of hazardous substances in soils that may leach from the soil into groundwater at concentrations in the groundwater exceeding generic Industrial and Commercial II, III, and IV Drinking Water Criteria.

The exceedances in this pathway were similar to above, except that sample concentrations did not exceed Criteria for the semi-volatile compound noted above and for the inorganic analyte molybdenum, as follows:

- Eight VOCs exceeded their criteria only in sample SB-13. These included: **Benzene** detected above its 100 micrograms per kilogram (ug/kg) Criterion at a concentration of 51,000 ug/kg; **n-Butylbenzene** detected above its 4,600 ug/kg Criterion at a concentration of 20,000 ug/kg; **sec-Butylbenzene** detected above its 4,600 ug/kg Criterion at a concentration of 9,400 ug/kg; **Ethylbenzene** detected above its 1,500 ug/kg Criterion at a concentration of 19,000 ug/kg; **n-Propylbenzene** detected above its 4,600 ug/kg at a concentration of 58,000 ug/kg; **1,2,4-Trimethylbenzene** detected above its 2,100 ug/kg Criterion at a concentration of 11,000 ug/kg; **1,3,5-Trimethylbenzene** detected above its 1,800 ug/kg Criterion at a concentration of 4,600 ug/kg; and **Xylenes** detected above its 5,600 ug/kg Criterion at a concentration of 31,500 ug/kg.
- Several inorganic analytes were detected in eight soil boring samples at concentrations exceeding their Criteria when statewide default background values were used, and were above MBSS background levels. These included:
    - **Antimony** detected above its 4.3 mg/kg Criterion in samples SB-05 and SB-07 at concentrations of 8.0 and 4.4 mg/kg, respectively;
    - **Cyanide** detected above its 4.0 mg/kg Criterion in samples SB-07 and SB-09 at concentrations of 7.3 and 17 mg/kg, respectively;

- **Iron** detected above its 12,000 mg/kg Criterion (default background) in samples SB-03, SB-05, SB-07, SB-09 and SB-14 at concentrations ranging between 13,000 to 92,000 mg/kg;
- **Lead** detected above its 700 mg/kg Criterion in sample SB-05 at a concentration of 1,300 mg/kg;
- **Mercury** detected above its 1.7 mg/kg Criterion in samples SB-03 and SB-05 at concentrations of 3.2 and 2.5 mg/kg, respectively; and

- Some inorganic analytes were detected at concentrations above their Criteria when statewide default background values were used, but were equal to or below MBSS values. These included:
  - **Arsenic** detected above its 5.8 mg/kg Criterion (default background) in samples SB-01, SB-03, SB-05, SB-07, SB-09, SB-10, SB-13 and SB-14 at concentrations ranging from 6.4 to 25 mg/kg, but all the concentrations were below the MBSS lobe-specific mean to 2SD;
  - **Total Chromium** detected above its 30 mg/kg Criterion in only sample SB-01 at a concentration of 50 mg/kg, but its sample concentration was equal to the MBSS statewide maximum of 50 mg/kg;
  - **Cobalt** detected above its 6.8 mg/kg Criterion (default background) in samples SB-03 and SB-07 at concentrations of 7.4 and 7.0 mg/kg, respectively, but these concentrations were below the MBSS statewide maximum of 8.7 mg/kg;

Exceedances above the Soil Groundwater Surface Water Interface Protection Criteria:

These Criteria represent concentrations of hazardous substances in soils that may leach from the soil into groundwater at concentrations in the groundwater exceeding generic Groundwater Surface Water Interface Criteria.

Several organic compounds or inorganic analytes were detected in 10 of the 14 soil boring samples at concentrations that exceeded their respective Criteria in this pathway, as follows:

- Six VOCs exceeded their Criteria in sample SB-13. These included: **Benzene** detected above its 4,000 ug/kg Criterion at a concentration of 51,000 ug/kg; **Ethylbenzene** detected above it 360 ug/kg Criterion at a concentration of 19,000 ug/kg; **Toluene** detected above its 2,800 ug/kg Criterion at a concentration of 4,700 ug/kg; **1,2,4-Trimethylbenzene** detected above its 570 ug/kg Criterion at a concentration of 11,000 ug/kg; **1,3,5-Trimethylbenzene** detected above its 1 100 ug/kg Criterion at a concentration of 4600 ug/kg; and **Xylenes** detected above its 700 ug/kg Criterion at a concentration of 31,500 ug/kg.
- Two SVOCs exceeded their Criteria in sample in two samples. These included: **Fluoranthene** detected above its 5500 ug/kg Criterion in sample SB-05 at a concentration of 7,200 ug/kg; and **Naphthalene** detected above its 870 ug/kg Criterion in sample SB-13 at a concentration of 15,000 ug/kg.

- Several inorganic analytes were detected in eight soil boring samples at concentrations exceeding their Criteria when statewide default background values were used, and were above MBSS background levels. These included:
    - **Cyanide** detected above its 0.39 mg/kg Criterion (default background) in samples SB-03, SB-05, SB-07, SB-09, SB-11 and SB-13 at concentrations ranging between 0.52 and 17 mg/kg;
    - **Mercury** detected above its 0.13 mg/kg Criterion (default background) in samples SB-01, SB-03, SB-05, SB-07, SB-09, and SB-13 at concentrations ranging between 0.15 and 3.2 mg/kg;
    - **Selenium** detected above its 0.41 mg/kg Criterion (default background) in samples SB-01, SB-03, SB-05, SB-07, SB-09, SB-10, SB-13, and SB-14 at concentrations ranging between 0.68 and 2.1 mg/kg; and
    - **Zinc** detected above its 260 mg/kg Criterion in samples SB-03, SB-05 and SB-07 at concentrations ranging between 550 to 1,300 mg/kg.
- Some inorganic analytes were detected at concentrations above their Criteria when statewide default background values were used, but were equal to or below MBSS values. These included:
    - **Total Chromium** detected above its 18 mg/kg Criterion (default background) in sample SB-01 at a concentration of 50 mg/kg, but its sample concentration was equal to the MBSS statewide maximum of 50 mg/kg; and
    - **Cobalt** detected above its 6.8 mg/kg Criterion (default background) in samples SB-03 and SB-07 at concentrations of 7.4 and 7.0 mg/kg, respectively, but these concentrations were below the MBSS statewide maximum of 8.7 mg/kg.

Exceedances above the Residential and Commercial I Soil Volatilization to Indoor Air Inhalation Criteria:

These Criteria represent concentrations of hazardous substances in soils that may volatilize from the soil into Residential and Commercial I indoor air at concentrations considered to be hazardous. Only **Benzene** exceeded this Criterion, and only in sample SB-13. It was detected above its 1,600 ug/kg Criterion at a concentration of 51,000 ug/kg.

Exceedances above the Industrial and Commercial II, III, and IV Soil Volatilization to Indoor Air Inhalation Criteria:

These Criteria represent concentrations of hazardous substances in soils that may volatilize from the soil into Industrial and Commercial II, III, and IV indoor air at concentrations considered to be hazardous. Only **Benzene** exceeded this Criterion, and only in sample SB-13. It was detected above its 8,400 ug/kg Criterion at a concentration of 51,000 ug/kg.

Exceedances above the Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria:

These Criteria represent concentrations of hazardous substances in soils at Residential & Commercial I locations considered to be hazardous through the inhalation of gases volatilizing into ambient air. Only **Benzene** exceeded this Criterion, and only in sample SB-13. It was detected above its 13,000 ug/kg Criterion at a concentration of 51,000 ug/kg.

Exceedances above the Residential and Commercial I Finite Source Volatile Soil Inhalation Criteria for 5 Metal Source Thickness:

These Criteria represent concentrations of hazardous substances in soils at Residential and Commercial I locations considered to be hazardous through particulate inhalation of the soil. Only **Benzene** exceeded this Criterion, and only in sample SB-13. It was detected above its 34,000 ug/kg Criterion at a concentration of 51,000 ug/kg.

Exceedances above the Industrial and Commercial II, III, and IV Infinite Source Volatile Soil Inhalation Criteria:

These Criteria represent concentrations of hazardous substances in soils at Industrial and Commercial II, III, and IV locations considered to be hazardous through particulate inhalation of the soil. Only **Benzene** exceeded this Criterion, and only in sample SB-13. It was detected above its 45,000 ug/kg Criterion at a concentration of 51,000 ug/kg.

Exceedances above the Soil Residential and Commercial I Direct Contact Criteria:

The Criteria in this exposure pathway represent concentrations of hazardous substances in soils at Residential and Commercial I locations considered to be hazardous through dermal contact and ingestion of the soil. One semi-volatile organic compound and three inorganic analytes exceeded criteria in this pathway. These included: **Benzo(a)pyrene** detected above its 2000 ug/kg Criterion in sample SB-05 at a concentration of 3,300 ug/kg; **Arsenic** detected above its 7.6 mg/kg Criterion in samples SB-01, SB-03, SB-05, SB-07, SB-09, and SB-13 at concentrations ranging between 8.3 to 25 mg/kg; **Cyanide** detected above its 12 mg/kg Criterion in sample SB-09 at a concentration of 17 mg/kg; and **Lead** detected above its 400 mg/kg Criterion in sample SB-05 at a concentration of 1,300 mg/kg. As noted previously, all the arsenic concentrations are below the MBSS lobe-specific mean to 2SD, and are probably within background.

Exceedances above the Soil Industrial and Commercial II Direct Contact Criteria:

These Criteria represent concentrations of hazardous substances in soils at Industrial and Commercial II locations considered to be hazardous through dermal contact and ingestion of the soil. Only **Lead** exceeded the criteria in this pathway, and only in sample SB-05. Lead was detected above its 900 mg/kg Criterion at a concentration of 1,300 mg/kg.

Exceedances above the Soil Commercial III Direct Contact Criteria:

These Criteria represent concentrations of hazardous substances in soils at Commercial III locations considered to be hazardous through dermal contact and ingestion of the soil. Only **Lead** exceeded the criteria in this pathway, and only in sample SB-05. Lead was detected above its 400 mg/kg Criterion at a concentration of 1,300 mg/kg.

Exceedances above the Soil Commercial IV Direct Contact Criteria:

These Criteria represent concentrations of hazardous substances in soils at Commercial IV locations considered to be hazardous through dermal contact and ingestion of the soil. Only **Lead** exceeded the criteria in this pathway, and only in sample SB-05. Lead was detected above its 400 mg/kg Criterion at a concentration of 1,300 mg/kg.

Groundwater Samples

The intent of the groundwater sampling was to identify potential contamination in the groundwater, to determine if any downward migration of possible contamination had occurred from probable source areas into the shallow aquifer, and to determine potential health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or resources associated with the groundwater in the area of the Property. To accomplish this intent, seven groundwater samples (including one duplicate sample) were collected from six temporary monitoring wells installed using a Geoprobe® rig according to the procedures outlined in the work plan. An additional sample was planned at the location identified as TMW-1 in Figure 5, but not enough water could be produced for a sample.

Field staff used the following method for installing the temporary monitoring wells. They drove small diameter well points directly into the aquifer after pre-probing the hole with an over-sized drive point. The temporary wells were constructed of one inch polyvinyl chloride (PVC) riser pipe with a five-foot section of one inch PVC #10 slot well screen. The well screens were set such that the static water level was slightly above the screen or within it.

After installation, staff developed each well to reduce the amount of sediment, to clear the well screens, and to obtain representative groundwater samples. This was done by purging the well using dedicated low density polyethylene (LDPE) and C-FLEX® tubing and a peristaltic pump. Staff first purged the well of heavy sediment using a relatively fast purge rate. Then, the purge rate was lowered until a steady low flow purge rate of 200 to 450 milliliters/minute was established. Accepted low flow rates are typically 100 to 500 ml/minute (Puls and Barcelona 1996). During the low flow purging, temperature, pH, conductivity, oxidation reduction potential, and total dissolved solids were measured at continuing intervals until these measurements stabilized. Staff measured these field parameters using a Myron meter that was first calibrated using known calibration standards for pH and conductivity.

Once the listed groundwater parameters had stabilized, staff sampled each well using low flow techniques as outlined in the work plan. All temporary monitoring well samples were collected utilizing dedicated LDPE and C-FLEX® tubing and a peristaltic pump. See Figure 5 for a map showing the temporary monitoring well sample locations. Information on the groundwater sample characteristics and the temporary monitoring well construction can be found in Table 5. Table 6 provides a summary of the temporary monitoring well sample analytical results that exceed Part 201 Criteria and lists the Criteria exceedances.

Analysis of the groundwater samples collected during the BFRA detected the presence of organic compounds and inorganic analytes at concentrations above their respective Part 201 Criteria. The following lists the Criteria exceedances for groundwater samples and the compounds/analytes and samples with concentrations in excess of Criteria. The full extent of the contaminants in the groundwater was not fully delineated during the BFRA of the Property.

Exceedances above the Residential and Commercial I Drinking Water Criteria:

The Criteria in this exposure pathway represent concentrations of hazardous substances in groundwater that pose a risk to Residential and Commercial uses of groundwater for drinking water purposes.

One VOC or several inorganic analytes exceeded the Criteria in this pathway at all the temporary monitoring wells sampled. These included: **Benzene** detected above its 5.0 ug/l Criterion in samples TMW-3 and TMW-6 at concentrations of 6.0 and 20 ug/l, respectively; **Arsenic** detected above its 10 ug/l Criterion in sample TMW-3 at a concentration of 31 ug/l; **Iron** detected above its 300 ug/l aesthetic Criterion in all the samples at concentrations ranging from 910 to 30,000 ug/l; **Iron** detected above its 2,000 ug/l health-based Criterion in samples TMW-3, TMW-5 and TMW-6 at concentrations ranging from 4,600 to 30,000 ug/l; **Lead** detected above its 4.0 ug/l Criterion in samples TMW-3, TMW-5, and TMW-6 at concentrations ranging from 14 to 100 ug/l; **Manganese** detected above its 50 ug/l aesthetic Criterion in all the samples at

concentrations ranging between 55 and 1,600 ug/l; **Manganese** detected above its 860 ug/l health-based Criterion in sample TMW-7 at a concentration of 1,600 ug/l; and **Vanadium** detected above its 4.5 ug/l Criterion in samples TMW-3 and TMW-7 at concentrations of 21 and 10 ug/l, respectively.

Exceedances above the Industrial and Commercial II, III, and IV Drinking Water Criteria:

The Criteria in this exposure pathway represent concentrations of hazardous substances in groundwater that pose a risk to Industrial and Commercial II, III, and IV land uses where groundwater is used for drinking water.

One VOC or several inorganic analytes exceeded the Criteria in this pathway at all the temporary monitoring wells sampled. These included: **Benzene** detected above its 5.0 ug/l Criterion in samples TMW-3 and TMW-6 at concentrations of 6.0 and 20 ug/l, respectively; **Arsenic** detected above its 10 ug/l Criterion in sample TMW-3 at a concentration of 31 ug/l; **Iron** detected above its 300 ug/l aesthetic Criterion in all the samples at concentrations ranging from 910 to 30,000 ug/l; **Iron** detected above its 5,600 ug/l health-based Criterion in samples TMW-5 and TMW-6 at concentrations of 30,000 and 24,000 ug/l, respectively; **Lead** detected above its 4.0 ug/l Criterion in samples TMW-3, TMW-5, and TMW-6 at concentrations ranging from 14 to 100 ug/l; and **Manganese** detected above its 50 ug/l aesthetic Criterion in all the samples at concentrations ranging between 55 and 1,600 ug/l.

Exceedances above the Groundwater Surface Water Interface Criteria:

The Criteria in this exposure pathway represent concentrations of hazardous substances in groundwater that pose a risk to surface water through migration of contaminated groundwater to a surface water body such as the Saginaw River.

One VOC, one SVOC and a few inorganic analytes exceeded the Criteria in this pathway in two of the six sample locations. These included: the VOC **Ethylbenzene** detected above its 18 ug/l Criterion in sample TMW-6 at a concentration of 44 ug/l; the SVOC **Naphthalene** detected above its 13 ug/l Criterion in sample TMW-6 at a concentration of 78 ug/l; **Total Chromium** detected above its 11 ug/l Criterion (chromium [VI] Criterion applied) in sample TMW-6 at a concentration of 13 ug/l; **Copper** detected above its 20 ug/l Criterion in sample TMW-6 at a concentration of 24 ug/l; **Lead** detected above its 28 ug/l Criterion in sample TMW-6 at a concentration of 100 ug/l; **Vanadium** detected above its 12 ug/l Criterion in sample TMW-3 at a concentration of 21 ug/l; and **Zinc** detected above its 260 ug/l Criterion in sample TMW-6 at a concentration of 290 ug/l.

Temporary Monitoring Well Survey

After installation of the temporary monitoring wells, field staff completed a well survey of these wells. Staff surveyed in the top of casing (TOC) and ground elevations using a survey level and rod. Measurements were made to the nearest 0.01 foot. Due to the temporary nature of the monitoring wells, an arbitrary benchmark of 100.00 feet was set at the water hydrant located at the southeast corner of the Water and 10th Street intersection. All the wells were surveyed in to that point. A United States Geological Survey benchmark was found at the City Hall building, but was not used in this survey because it was found after the survey. To determine depth to groundwater, static water levels were measured for each well from the TOC with an electronic water level meter. The static water level measurements were taken on November 7, 2007, to let the wells equilibrate to aquifer pressure. Static water level elevations were then determined using these measurements. Table 7 contains the groundwater elevation data. Based on the static water level elevations calculated on November 7, 2007, the shallow groundwater appears to be flowing toward the west or west-northwest. This is toward the Saginaw River. Figure 6 displays the water table surface contours and relative elevation data.

DISCUSSION

Staff of the MDEQ conducted a BFRA of the Property according to the CA with the U.S. EPA and according to the approved work plan. The BFRA included: file and information searches; a reconnaissance inspection of the Property; the collection and analyses of surficial soil, subsurface soil, and groundwater; GPS data collection of sample locations and property features; the collection of property feature photographs; data evaluation; and the writing of this report.

Analysis of 25 soil and seven groundwater samples collected during the BFRA of the Property detected the presence of organic compounds and inorganic analytes at concentrations greater than Part 201 Generic Residential Cleanup Criteria. These contaminants of concern (COCs) include:

- nine volatile organic compounds (benzene, n-butylbenzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes);
- four semi-volatile organic compounds (benzo(a)pyrene, fluoranthene, 2-methylnapththalene, and napththalene); and
- twelve inorganic analytes (antimony, arsenic, total chromium, copper, cyanide, iron, lead, manganese, mercury, selenium, vanadium, and zinc).

Because these COCs were detected at concentrations in excess of Generic Residential Cleanup Criteria, the Property meets the definition of a facility under Part 201. Statewide default values were used as the initial background values for the inorganic analytes in the facility determination. A more detailed background evaluation was completed and summarized in the previous sections. This evaluation eliminated mercury in the surficial soil samples and arsenic, total chromium, cobalt, and molybdenum as COCs in the deeper soil samples.

Only one COC (cyanide) could be identified in the surficial soils on the Property, and only from sample SS-06. The original plans for this BFRA did not include surficial soil sampling because of the fill brought in from outside sources to cover the surface of the Property. However, staff later decided to include limited shallow soil sampling to document the quality of the fill. The cyanide concentration found was 1.0 mg/kg. This concentration is below background concentrations noted in some research reports. For example, Kesler-Arnold and O'Hearn (1990) state that a sandy soil can have up to 1.2 mg/kg cyanide. Also, cyanide can be higher where decomposition of plant material is present, such as peat type soils and in topsoil (MDNR 1993). Since SS-06 contained some wood debris, this could have increased the cyanide level.

The COCs in the deep soils on the Property include several organic compounds and inorganic analytes: VOCs (benzene, n-butylbenzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes); SVOCs (benzo(a)pyrene, fluoranthene, 2-methylnapththalene, and

napththalene); and inorganics (antimony, total chromium, cyanide, iron, lead, mercury, selenium, and zinc). All the VOC COCs and two of the SVOCs were found in sample SB-13. This sample location is associated with a low area near the south side of the Property. The remaining two SVOCs and the highest concentrations of antimony, iron, lead, and zinc were associated with sample SB-05. This sample was located near a former Bay Aggregate Inc. repair shed and within a former city dumping area. See Figure 2A. Sample SB-03 could also be located within the former city dumping area, where the highest concentrations of mercury and selenium were found.

The COCs in the groundwater on the Property include: VOCs (benzene and ethylbenzene), the SVOC naphthalene, and inorganics (arsenic, total chromium, copper, iron, lead, manganese, vanadium, and zinc). The most contaminated samples found during this assessment appear to be TMW-3 and TMW-6. TMW-3 is close to SB-13, which was in the south side low area of the Property. SB-13, TMW-3, and TMW-6 contained benzene as a COC. TMW-6 had the highest concentration of lead of all the groundwater samples. SB-05, less than 200 feet to the south, had the highest concentration of lead of the soil boring samples. TMW-6 could be potentially hydraulically downgradient from SB-05. Groundwater flow in the area appears to be towards the west or northwest. Iron was also high in both SB-05 and TMW-6.

Based on the findings of the BFRA investigation, the following issues should be addressed before or during redevelopment of the Property:

- Groundwater at the Property should not be used for drinking water purposes at any time unless an MDEQ-approved cleanup of the groundwater is completed. An MDEQ-approved local ordinance to prohibit this use of the groundwater is recommended.

- Do not engage in activities that will exacerbate the flushing of groundwater toward the Saginaw River during redevelopment or future use, especially in the northern part of the Property near TMW-6. This includes exercising care to minimize flushing water through contaminated subsurface soils.

- Some subsurface soils present a direct contact risk if unearthed and exposed for a longer time. Deeper soils in areas represented by samples SB-05 and SB-09 should not be excavated and left exposed. Similar levels of contamination could be more widespread across the Property. Care should be taken during any redevelopment to limit exposures in those areas where a direct contact risk is likely.

- Indoor air and ambient air risks appear to be present in the vicinity of sample SB-13. No building construction should be considered in this area without further delineation of benzene and possibly other VOC concentrations.

- The COCs should be considered with respect to responsibilities that may exist under Part 201. The nature of any response activity that may be required is

dependent on the intended use of the Property and the party's liability under Part 201. A person who is liable for the contamination is required to achieve cleanup of the Property consistent with the cleanup Criteria. The relevant Criteria are a function of the intended property use, such as residential, commercial, or industrial. A non-liable developer is not required to implement a cleanup to achieve the appropriate cleanup Criteria. However, a non-liable party must comply with the "due care" obligations specified in Section 7a of Part 201. These obligations include not exacerbating the existing contamination, exercising due care to assure there are not unacceptable exposures, and taking reasonable precautions against the reasonably foreseeable activities of third parties.

- Further information concerning Part 201 cleanup criteria, due care provisions, and remedial and/or removal activities may be obtained from the MDEQ Remediation and Redevelopment Division, Saginaw Bay District Office, at 989-686-8025.

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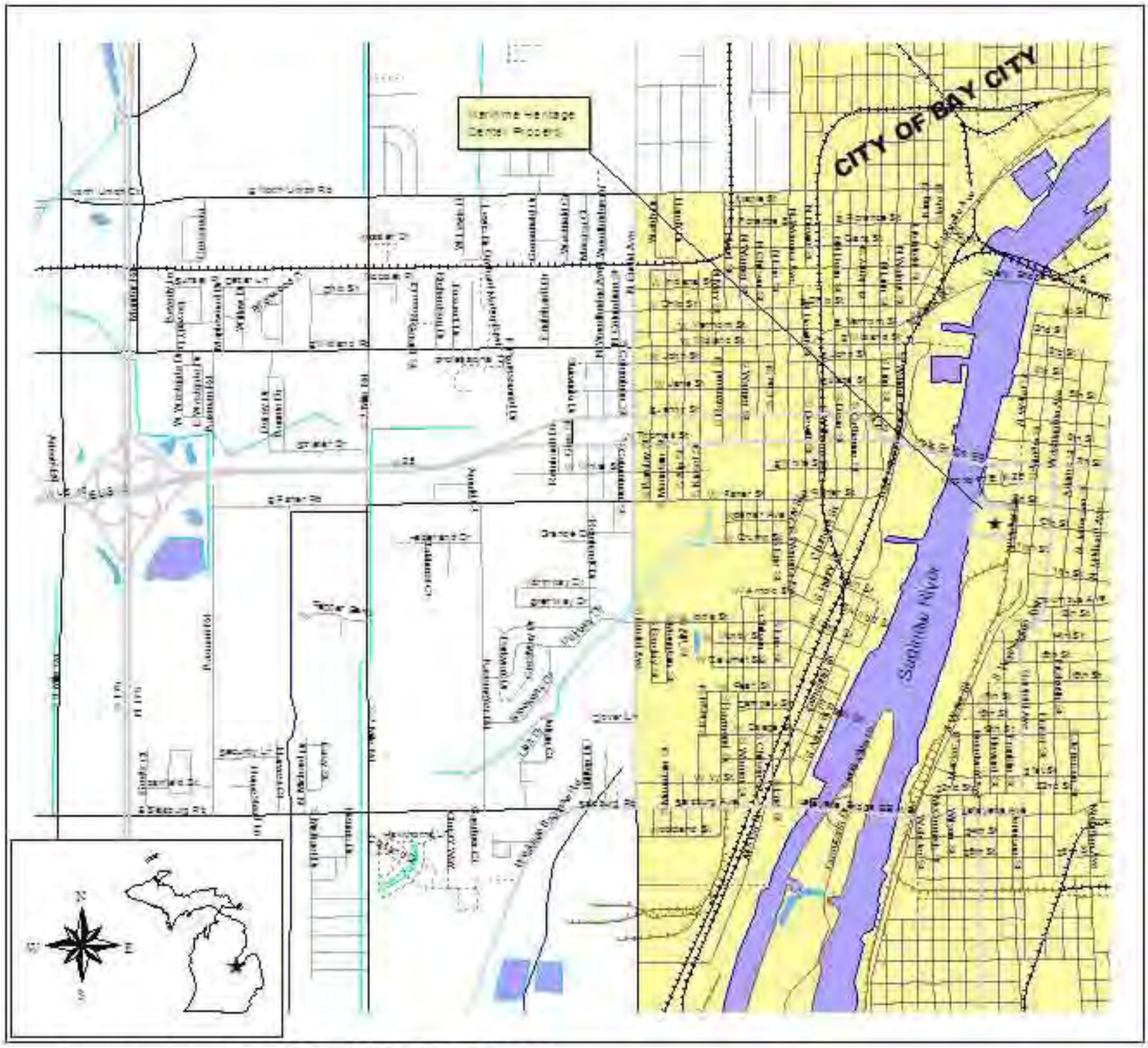
FIGURE 1
PROPERTY LOCATION



Sources City of Bay City (2007) MDIT (2008)

1 0 1 Miles

Saginaw Bay
Area of Michigan

★ Property Location

Property Boundary

Compiled 07/21/08 by JES
Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

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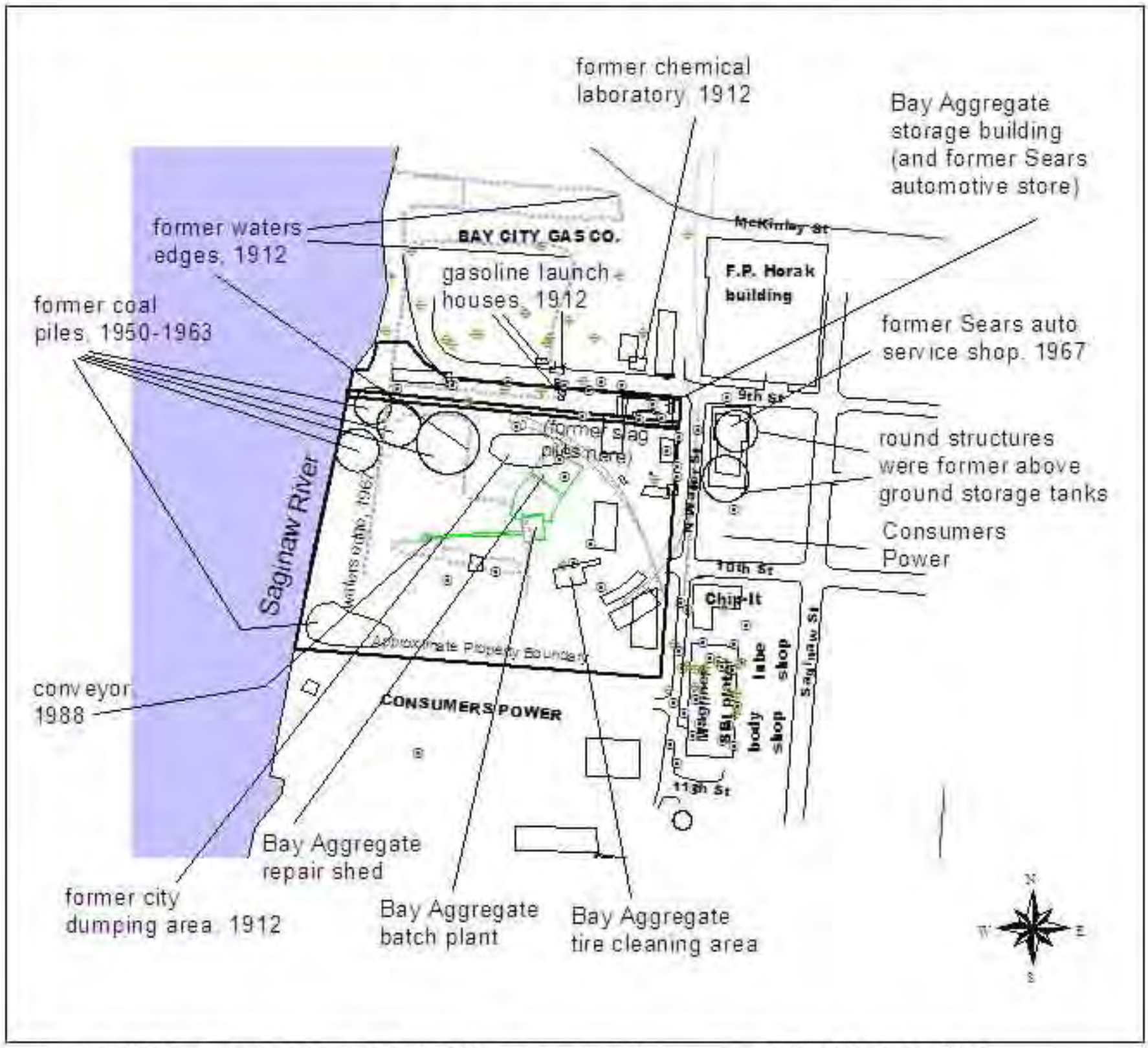
FIGURE 2A
HISTORICAL PROPERTY FEATURES



Sources: Michigan Historical Library (MDHAL 2007); historical aerial photographs (MSU 2007); MDEQ 2007

500 0 500 1000 Feet

Compiled 10/11/07 by JES
(revised 7/21/08, 9/18/08)
Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

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Legend

- Monitoring well from previous investigation
- Soil boring from previous investigation
- Former rail track

FIGURE 2B
CURRENT PROPERTY FEATURES

Sources: MDEQ 2007b/c, MDIT 2008, 2005 aerial photograph (Google Earth 2008)

Compiled 08/06/08 by JES
(revised 8/18/08, JES)
Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

Legend

- GPSed corner
- Fence or gate post
- Water hydrant used for well survey benchmark
- Existing monitoring well
- Property line stake
- Temporary monitoring well survey point, showing relative ground elevation, feet
- Edges of asphalt and concrete areas
- Fence
- Property boundary, approximate

(note: all points were GPSed)

100 0 100 200 300 Feet

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FIGURE 3
SURFICIAL SOIL SAMPLE LOCATIONS

Sources: MDEQ 2007c

Legend

SS-01 Surficial Soil 1

100 0 100 200 300 Feet

N W E S

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Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

FIGURE 4
SOIL BORING SAMPLE LOCATIONS

Sources: MDEQ 2007c

Legend

○ Soil Boring 1
SB-01

100 0 100 200 300 Feet

N
W E
S

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Michigan GeoRef, NAD-83, meters

FIGURE 5
TEMPORARY MONITORING WELL SAMPLE AND WELL SURVEY LOCATIONS

Sources: MDEQ 2007c

Legend

+ TMW-1 Temporary Monitoring Well 1

100 0 100 200 300 Feet

N W E S

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Compiled 08/06/08 by JES
Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

FIGURE 6
WATER TABLE SURFACE CONTOURS

Sources: MDEQ 2007c

Legend

86.23 Temporary Monitoring Well
86.23 feet relative elevation

86 Water Table Surface Contour
86 feet relative elevation

100 0 100 200 300 Feet

N
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BROWNFIELD REDEVELOPMENT ASSESSMENT REPORT
MARITIME HERITAGE CENTER, MIB000000146
Michigan Department of Environmental Quality
Remediation and Redevelopment Division, SF-SEU

Compiled 08/06/08 by JES
Done in ArcView 3.2a
Michigan GeoRef, NAD-83, meters

TABLE 1

SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-01	340326.2259	669915.6367	0-2 in. 2-6 in. 6-7 in.	Sod. Slightly moist, dark brown, fine to medium sand with trace of silt very consistent, some shells. Slightly moist, medium brown with yellow streaks, medium to fine silty sand.	Shallow grab sample. Volatile Organic Analysis (VOA) portion of sample collected at 5-6 in. Remaining sample portion taken from 2-7 in.
SS-02/ SS-11	340301.3995	669913.4281	0-1 in. 1-5 in. 5-7 in.	Limestone gravel – used chisel to dig. Slightly moist, brown, medium sand with medium limestone gravel 50 percent sand and 50 percent gravel. This spot had more sand than all the others. Hit a darker brown area of medium sand with medium gravel and pieces of coal.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 3-7 in. SS11 is duplicate sample.
SS-03	340253.4947	669991.0963	0-4 in. 4-8 in.	Brown, medium sand and medium gravel. Slightly moist, dark brown, medium sand with 50 percent medium to fine gravel.	Shallow grab sample. VOA portion of sample collected at 4-6 in. Remaining sample portion taken from 3-8 in.

TABLE 1

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SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-04	340279.3154	670005.1473	0-7 in.	Slightly moist, medium brown, medium sand with gravel (crushed limestone about 1 inch in size.	Shallow grab sample. VOA portion of sample collected at 4-6 in. Remaining sample portion taken from 4-7 in.
SS-05	340291.1705	670058.6136	0-4 in. 4-6 in.	Top of ground, large chunks of limestone and gravel. Slightly moist, brown, medium sand with medium to fine stone gravel. Slightly moist, light brown, medium sand with some medium limestone gravel.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 2-6 in.
SS-06	340171.3726	670065.3131	0-5 in. 5-6 in.	Moist, medium brown sand and medium gravel at surface with some wood debris. Moist, light brown, medium sand with clay and some medium gravel.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 3-6 in.
SS-07	340172.4431	670012.6801	0-7 in.	Gravel at surface - more like ground up concrete. Slightly moist, light brown, medium sand with medium gravel, very consistent.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 3-7 in.

TABLE 1

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SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-08	340202.5269	669961.1815	0-½ in. ½-6 in. 6-7 in.	Fine gravel, more fine than surrounding area. Slightly moist, brown, fine to medium gravel with medium brown sand, difficult to dig. Gravel got larger and very little medium sand.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 4-7 in.
SS-09	340127.9323	669990.9932	0-5 in.	Moist to wet, brown, medium sand and medium gravel, some silt and clay, limestone gravel 1-2 inches. A lot of goose droppings, lots of wire chunks, and large chunks of concrete, very difficult to dig.	Shallow grab sample. VOA portion of sample collected at 3-7 in. Remaining sample portion not collected.
SS-10	340159.6135	669881.0091	0-7 in.	Crust at top. Surface sand and gravel with crusted limestone, light brown, fine to medium sand and medium fine stone gravel.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 3-7 in.

Location Coordinates: Michigan Georef North American Datum (NAD) 1983 meters

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-01	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	84	T		41,000		41,000		ID		41,000	
	Benzo(a)anthracene (Q)	280			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	510			NLL		NLL		NLL		NLL	
	Benzo(g,h,i)perylene	250			NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	340			NLL		NLL		NLL		NLL	
	Chrysene (Q)	390			NLL		NLL		NLL		NLL	
	Fluoranthene	610			730,000		730,000		5,500		730,000	
	Indeno(1,2,3-cd)pyrene (Q)	210	T		NLL		NLL		NLL		NLL	
	Phenanthrene	410			56,000		160,000		5,300		1,100,000	
	Pyrene	610			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDE	17	T		NLL		NLL		NLL		NLL	
	4-4'-DDT	15	T		NLL		NLL		NLL		NLL	
	Polychlorinated biphenyls	160			NLL		NLL		NLL		NLL	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.45			4.3		4.3		94	X	49,000	
	Arsenic	5		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	260		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.46			51		51		330	G	1,000,000	D
	Cadmium (B)	0.49		1.2	6.0		6.0		5.4	G,X	230,000	
	Chromium [Total] (H)	14		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	3.2		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	19		32	5,800		5,800			G	1,000,000	D
	Cyanide (P,R)	0.31		0.39	4.0		4.0		0.1		250	
	Iron (B)	9,600	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	120		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	180		440	1.0		1.0		88	G,X	180,000	
	Mercury [Total] (B,Z)	0.09		0.13	1.7		1.7		0.05	M	47	
	Nickel (B)	11		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.47		0.41	4.0		4.0		0.4		78,000	
	Silver (B)	0.14		1.0	4.5		13		0.1	M	200,000	
	Vanadium	11			72		990		190		1,000,000	D
	Zinc (B)	88		47	2,400		5,000		260	G	1,000,000	D

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-02	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Toluene (I)	110			16,000		16,000		2,800		250,000	C
	1,2,4-Trimethylbenzene (I)	230			2,100		2,100		570		110,000	C
	Xylenes (I)	400			5,600		5,600		700		150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	84	T		NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	110	T		NLL		NLL		NLL		NLL	
	Chrysene (Q)	130			NLL		NLL		NLL		NLL	
	Fluoranthene	150			730,000		730,000		5,500		730,000	
	2-Methylnaphthalene	860	X		57,000		170,000		ID		5,500,000	
	Naphthalene	460	X		35,000		100,000		870		2,100,000	
	Phenanthrene	300			56,000		160,000		5,300		1,100,000	
	Pyrene	140			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	1.2		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	35		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	1.0			51		51		330	G	1,000,000	D
	Chromium [Total] (H)	2.9		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.2		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	3.5		32	5,800		5,800			G	1,000,000	D
	Iron (B)	3,000	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	8.8		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	310		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	8.6		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.49		0.41	4.0		4.0		0.4		78,000	
	Vanadium	2.9			72		990		190		1,000,000	D
	Zinc (B)	18		47	2,400		5,000		260	G	1,000,000	D

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Maritime Heritage Center
November 5-7, 2007

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Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-03	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Ethylbenzene (I)	76			1,500		1,500		360		140,000	C
	Toluene (I)	420			16,000		16,000		2,800		250,000	C
	1,2,4-Trimethylbenzene (I)	200			2,100		2,100		570		110,000	C
	Xylenes (I)	660			5,600		5,600		700		150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthene	120			300,000		880,000		4,400		970,000	
	Anthracene	350			41,000		41,000		ID		41,000	
	Benzo(a)anthracene (Q)	890			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	1,100			NLL		NLL		NLL		NLL	
	Benzo(k)fluoranthene (Q)	410			NLL		NLL		NLL		NLL	
	Benzo(g,h,i)perylene	560			NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	890			NLL		NLL		NLL		NLL	
	Chrysene (Q)	1,000			NLL		NLL		NLL		NLL	
	Dibenzofuran	200	T		ID		ID		1,700		ID	
	Fluoranthene	1,900			730,000		730,000		5,500		730,000	
	Fluorene	140			390,000		890,000		5,300		890,000	
	Indeno(1,2,3-cd)pyrene (Q)	470			NLL		NLL		NLL		NLL	
	2-Methylnaphthalene	620	X		57,000		170,000		ID		5,500,000	
	Naphthalene	430	X		35,000		100,000		870		2,100,000	
	Phenanthrene	1,600			56,000		160,000		5,300		1,100,000	
	Pyrene	1,900			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	2.2			4.3		4.3		94	X	49,000	
	Arsenic	5.2		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	74		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.57			51		51		330	G	1,000,000	D
	Cadmium (B)	0.68		1.2	6.0		6.0		5.4	G,X	230,000	
	Chromium [Total] (H)	10		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	3.0		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	31		32	5,800		5,800			G	1,000,000	D
	Iron (B)	12,000	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	130		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	170		440	1.0		1.0		88	G,X	180,000	
	Mercury [Total] (B,Z)	0.15		0.13	1.7		1.7		0.05	M	47	
	Molybdenum (B)	1.1			1.5		4.2		16	X	19,000	
	Nickel (B)	12		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.68		0.41	4.0		4.0		0.4		78,000	
	Silver (B)	0.11		1.0	4.5		13		0.1	M	200,000	
	Vanadium	10			72		990		190		1,000,000	D
	Zinc (B)	210		47	2,400		5,000		260	G	1,000,000	D

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					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-04	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	2-Methylnaphthalene	530	X		57,000		170,000		ID		5,500,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Barium (B)	3.4		75	1,300		1,300		790	G,X	1,000,000	D
	Cobalt	0.82		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	2.6		32	5,800		5,800			G	1,000,000	D
	Iron (B)	1,300	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	2.1		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	85		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	15		20	100		100		120	G	1,000,000	D
	Vanadium	3.9			72		990		190		1,000,000	D
	Zinc (B)	13		47	2,400		5,000		260	G	1,000,000	D
SS-05	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	170			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	320			NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	200	T		NLL		NLL		NLL		NLL	
	Chrysene (Q)	230			NLL		NLL		NLL		NLL	
	Fluoranthene	380			730,000		730,000		5,500		730,000	
	Phenanthrene	240			56,000		160,000		5,300		1,100,000	
	Pyrene	360			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.30			4.3		4.3		94	X	49,000	
	Arsenic	1.3		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	10		75	1,300		1,300		790	G,X	1,000,000	D
	Cadmium (B)	0.24		1.2	6.0		6.0		5.4	G,X	230,000	
	Chromium [Total] (H)	3.7		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.0		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	6.3		32	5,800		5,800			G	1,000,000	D
	Cyanide (P,R)	0		0.39	4.0		4.0		0.1		250	
	Iron (B)	3,200	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	16		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	100		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	12		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.25		0.41	4.0		4.0		0.4		78,000	
	Vanadium	4.4			72		990		190		1,000,000	D
	Zinc (B)	35		47	2,400		5,000		260	G	1,000,000	D

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
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Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-06	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	110			41,000		41,000		ID		41,000	
	Benzo(a)anthracene (Q)	340			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	550			NLL		NLL		NLL		NLL	
	Benzo(g,h,i)perylene	310			NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	390			NLL		NLL		NLL		NLL	
	Chrysene (Q)	440			NLL		NLL		NLL		NLL	
	Fluoranthene	870			730,000		730,000		5,500		730,000	
	Indeno(1,2,3-cd)pyrene (Q)	240			NLL		NLL		NLL		NLL	
	Naphthalene	160			35,000		100,000		870		2,100,000	
	Phenanthrene	610			56,000		160,000		5,300		1,100,000	
	Pyrene	850			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Polychlorinated Biphenyls	880	JA		NLL		NLL		NLL		NLL	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	1.8		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	30		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.30			51		51		330	G	1,000,000	D
	Cadmium (B)	0.38		1.2	6.0		6.0		5.4	G,X	230,000	
	Chromium [Total] (H)	13		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.6		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	11		32	5,800		5,800			G	1,000,000	D
	Cyanide (P,R)	1.0		0.39	4.0		4.0		0.1		250	
	Iron (B)	4,600	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	63		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	150		440	1.0		1.0		88	G,X	180,000	
	Mercury [Total] (B,Z)	0.06		0.13	1.7		1.7		0.05	M	47	
	Nickel (B)	10		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.42		0.41	4.0		4.0		0.4		78,000	
	Vanadium	7			72		990		190		1,000,000	D
	Zinc (B)	160		47	2,400		5,000		260	G	1,000,000	D

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-07	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Fluoranthene	120			730,000		730,000		5,500		730,000	
	Phenanthrene	79	T		56,000		160,000		5,300		1,100,000	
	Pyrene	110			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	0.94		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	19		75	1,300		1,300		790	G,X	1,000,000	D
	Chromium [Total] (H)	6.6		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.4		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	5.5		32	5,800		5,800			G	1,000,000	D
	Iron (B)	3,900	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	12		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	100		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	8.0		20	100		100		120	G	1,000,000	D
	Vanadium	6.1			72		990		190		1,000,000	D
	Zinc (B)	33		47	2,400		5,000		260	G	1,000,000	D
SS-08	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	150			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	250			NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	160	T		NLL		NLL		NLL		NLL	
	Chrysene (Q)	190			NLL		NLL		NLL		NLL	
	Fluoranthene	340			730,000		730,000		5,500		730,000	
	Phenanthrene	180			56,000		160,000		5,300		1,100,000	
	Pyrene	290			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.42			4.3		4.3		94	X	49,000	
	Arsenic	2.9		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	58		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.45			51		51		330	G	1,000,000	D
	Cadmium (B)	0.21		1.2	6.0		6.0		5.4	G,X	230,000	
	Chromium [Total] (H)	11		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	2.6		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	12		32	5,800		5,800			G	1,000,000	D
	Iron (B)	8,000	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	32		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	180		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	11		20	100		100		120	G	1,000,000	D
	Vanadium	13			72		990		190		1,000,000	D
	Zinc (B)	51		47	2,400		5,000		260	G	1,000,000	D

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-09	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	300			NLL		NLL		NLL		NLL	
	Benzo(b)fluoranthene (Q)	500			NLL		NLL		NLL		NLL	
	Benzo(k)fluoranthene (Q)	170	T		NLL		NLL		NLL		NLL	
	Benzo(g,h,i)perylene	230	T		NLL		NLL		NLL		NLL	
	Benzo(a)pyrene (Q)	370			NLL		NLL		NLL		NLL	
	Chrysene (Q)	380			NLL		NLL		NLL		NLL	
	Fluoranthene	800			730,000		730,000		5,500		730,000	
	Indeno(1,2,3-cd)pyrene (Q)	190	T		NLL		NLL		NLL		NLL	
	Phenanthrene	430			56,000		160,000		5,300		1,100,000	
	Pyrene	620			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Polychlorinated biphenyls	150	J		NLL		NLL		NLL		NLL	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.51			4.3		4.3		94	X	49,000	
	Arsenic	2.1		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	54		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.36			51		51		330	G	1,000,000	D
	Chromium [Total] (H)	11		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	2.3		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	13		32	5,800		5,800			G	1,000,000	D
	Iron (B)	7,300	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	27		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	180		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	11		20	100		100		120	G	1,000,000	D
	Vanadium	12			72		990		190		1,000,000	D
	Zinc (B)	53		47	2,400		5,000		260	G	1,000,000	D

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SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**
SS-10	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No semi-volatile organic compounds detected											
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Barium (B)	6.4		75	1,300		1,300		790	G,X	1,000,000	D
	Chromium [Total] (H)	3.2		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.0		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	3.0		32	5,800		5,800			G	1,000,000	D
	Iron (B)	2,100	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	6.7		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	75		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	9.0		20	100		100		120	G	1,000,000	D
	Vanadium	3.1			72		990		190		1,000,000	D
	Zinc (B)	11		47	2,400		5,000		260	G	1,000,000	D
SS-11	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Toluene (I)	67			16,000		16,000		2,800		250,000	C
	1,2,4-Trimethylbenzene (I)	74			2,100		2,100		570		110,000	C
	Xylenes (I)	183			5,600		5,600		700		150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Fluoranthene	110			730,000		730,000		5,500		730,000	
	2-Methylnaphthalene	400			57,000		170,000		ID		5,500,000	
	Naphthalene	240			35,000		100,000		870		2,100,000	
	Phenanthrene	260			56,000		160,000		5,300		1,100,000	
	Pyrene	110			480,000		480,000		ID		480,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	1.9		5.8	4.6		4.6		70	X	2,000	
	Barium (B)	33		75	1,300		1,300		790	G,X	1,000,000	D
	Beryllium	0.90			51		51		330	G	1,000,000	D
	Chromium [Total] (H)	3.6		18								
	Chromium [VI]				30		30		3.3		140,000	
	Cobalt	1.3		6.8	0.8		2.0		2.0		48,000	
	Copper (B)	4.7		32	5,800		5,800			G	1,000,000	D
	Iron (B)	2,800	D	12,000	6.0		6.0		NA		1,000,000	D
	Lead (B)	10		21	700		700		4,900	G,M,X	ID	
	Manganese (B)	260		440	1.0		1.0		88	G,X	180,000	
	Nickel (B)	9.2		20	100		100		120	G	1,000,000	D
	Selenium (B)	0.64		0.41	4.0		4.0		0.4		78,000	
	Vanadium	2.7			72		990		190		1,000,000	D
	Zinc (B)	22		47	2,400		5,000		260	G	1,000,000	D

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TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-01	340321.7540	669926.3170	0-4 ft.	48 in.	0-15 in.	Damp, dark green, fine sandy loam with some gravel.	Deep grab sample. Volatile Organic Analysis (VOA) portion of sample collected at 32 in. of 8-12 ft. core.
					15-27 in.	Dry, dark brown clay, fine silty sand with some gravel.	
					27-30 in.	Dry, orange-tan brick.	
					30-48 in.	Damp, medium brown, silty fine sand with some coal fines (old coal odor).	
			4-8 ft.	44 in.	0-2 in.	Slough.	Remaining sample portion taken from 27-45 in. of 8-12 ft. core.
					2-19 in.	Moist, gray, very silty fine sand.	
					19-44 in.	Moist, dark tan, very silty fine sand with some black streaks (old coal odor).	
			8-12 ft.	45 in.	0-8 in.	Wet, medium tan, very silty fine sand.	
				.	8-27 in.	Wet, dark tan, very silty fine sand.	
					27-33 in.	Wet, black, silty fine sand, some coal fines (old coal odor).	
					33-36 in.	Wet, dark tan, silty fine sand.	
					36-45 in.	Wet, black, silty fine sand with some shells and coal fines (old coal odor). No PID hits.	

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SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-02	340299.7522	669909.7537	0-4 ft.	42 in.	0-12 in.	Damp, medium brown, fine sand with concrete and pea stone.	Refusal at about 5 ft. moved about 1 ft.
					12-28 in.	Dry, dark tan, medium sand with coal fines and chunks of coal (old coal odor).	0-4 ft. and 4 -8 ft. hit refusal again at about
					28-33 in.	Saturated, medium gray clay.	5 ft. Moved about 5 ft.
					33-36 in.	Saturated, dark gray clay.	pre-probed 0-4 in. (coal
					36-42 in.	Damp, dark tan, fine silty sand with sea shells.	fines on rod at about 3 ft. old coal odor). Able
			4-8 ft.	48 in.	0-17 in.	Saturated, dark tan, fine sand	to core 4-8 ft. and
					17-32 in.	Saturated, dark tan, fine sand with a few wood chips (old coal odor).	8-12 ft. at third location.
					32-48 in.	Saturated, dark tan, silty fine sand with lots of wood chips (old coal odor).	Deep grab sample.
			8-12 ft.	48 in.	0-48 in.	Saturated, dark tan, fine to medium sand, medium rock.	VOA portion of sample collected from 16 in. of 4-8 ft. core.
						No PID hits	Remaining sample portion taken from 6-28 in. of 4-8 ft. core.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-03	340262.9209	669971.0130	0-4 ft.	48 in.	0-22 in.	Dry, light tan, fine sand and clay with some gravel.	Corresponds with TMW-5.
					22-29 in.	Dry, light brown, fine sand and clay with some pea gravel.	Refusal at 6 ft. moved 1 ft., pre-probed to 4 ft. core. Attempted again - refusal at 6 ft. moved 10 ft. ahead, pre-probed to 8 ft. core, 8-12 ft. (no refusal went easy 4-8 ft. with large pre-probe and easy 8-12 ft. with macro core.
					29-48 in.	Dry, black coal fines (old coal odor) mixed with some pea gravel.	
			4-6 ft.	28 in.	0-10 in.	Slough.	
					10-17 in.	Moist, light brown clay.	
					17-28 in.	Saturated, green-brown clay with some black streaks (old coal odor).	
			8-12 ft.	46 in.	0-9 in.	Slough.	
					9-20 in.	Saturated, black (old coal odor) coarse sand with some pea gravel.	
					20-27 in.	Saturated, soft gray clay.	Deep grab sample.
					27-39 in.	Saturated, dark brown loam with some wood chunks (old coal odor) and roots.	VOA portion of sample collected at 44 in. from 8-12 ft. core. Remainder of sample collected at 36-46 in. from 8-12 ft. core.
					39-46 in.	Fill, saturated, black wood chips, (old coal odor) silt with sheen (old coal odor) pottery chips, and tile. No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-04	340232.0467	669928.6821	0-4 ft.	44 in.	0-44 in.	Dry, light tan, fine silty sand with lots of pea gravel (looks like ground-up concrete).	Corresponds with TMW-4.
			4-8 ft.	40 in.	0-12 in.	Slough.	Deep grab sample.
					12-18 in.	Dry, medium tan, fine silty sand with coarse gravel.	VOA collected at 24 in. from 8 ft.-12 ft. core.
					18-29 in.	Saturated, coarse gravel, medium tan, silty fine sand.	
					29-40 in.	Saturated, dark gray, fine sand with sea shells.	Remainder of sample collected at 12-36 in. from 8-12 ft. core.
			8-12 ft.	48 in.	0-5 in.	Slough.	
					5-39 in.	Saturated, dark gray, fine silty sand with sea shells.	
					39-48 in.	Saturated, dark gray, silty sand. No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-05	340259.0047	670000.4990	0-4 ft. Hole 1	33 in.	0-10 in.	Slightly moist, medium to fine sand and medium to fine gravel.	Hit refusal at about 2 ½ ft., moved probe and cored again. Deep grab sample.
					10-12 in.	Slightly moist, dark brown, medium to fine sand.	
					12-29 in.	Brown clay with some trace of gravel.	
					29-33 in.	Black, silty sand could be ashes.	VOA collected at 13-18 in. from 4-8 ft. core
			0-4 ft. Hole 2	37 in.	0-16 in.	Medium brown sand and medium to fine gravel.	
					16-37 in.	Brown clay with trace of gravel.	
			4-8 ft.	32 in.	0-13 in.	Brown, medium to fine gravel with medium sand.	Remaining sample collected at 0-33 in. from 8-12 ft. core.
					13-18 in.	Dark brown, medium sand and some silt and wood chips.	
					18-27 in.	Moist, brown clay with some gravel.	
					27-32 in.	Dark brown, medium to fine sand with some wood and gravel.	
			8-12 ft.	33 in.	0-33 in.	Saturated, dark brown, medium to fine sand and medium gravel. No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-06	340289.2245	670033.1711	0-4 ft.	41 in.	0-9 in.	Dry, dark brown, sandy loam with some gravel.	Corresponds with TMW-7.
					9-13 in.	Dry, green-gray, fine sand with silt and some pea gravel.	Sewer odor at the bore hole.
					13-22 in.	Slightly moist, light brown, silty fine sand.	
					22-27 in.	Slightly moist, dark gray, medium sand with some coal flecks (sewer odor).	Strong sewer odor on 12-16 ft. core when first opened core liner.
					27-41 in.	Slightly moist, green-gray, silty fine sand.	
			4-8 ft.	39 in.	0-5 in.	Slough.	
					5-8 in.	Dry, medium green, medium fine sand.	
					8-22 in.	Slightly moist, medium gray, silty fine sand with some gravel, some metal wire.	Deep grab sample. VOA collected at 27 in. from 8-12 ft. core.
					22-27 in.	Slightly moist, dark brown, medium fine sand.	
					27-39 in.	Slightly moist, dark gray, silty fine sand with some pea gravel.	Remainder of sample collected at 21-34 in. from 8-12 ft. core.
			8-12 ft.	39 in.	0-9 in.	Slightly moist, green-gray, silty fine sand.	
					9-21 in.	Moist, dark green wood.	
					21-34 in.	Moist, green-gray, silty fine sand with some sea shells.	
					34-39 in.	Moist wood.	
			12-16 ft.	39 in.	0-10 in.	Saturated, gray, silty fine sand (slurry).	
					10-39 in.	Saturated wood.	
						No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-07	340290.7021	670059.9877	0-4 ft.	10 in.	0-5 in.	Brown, medium sand and medium to fine gravel.	Deep grab sample.
					5-10 in.	Slightly moist, dark brown, medium to fine sand with some small gravel.	VOA collected at 2-16 in. from 8-12 ft. core.
			4-8 ft.	7 in.	0-4 in.	Dark brown, medium to fine sand with some gravel	Remaining sample collected at 5-7 in. from 4-8 ft. core and at 0-16 in. from the 8-12 ft. core.
					4-5 in.	One large chunk of cement.	
					5-7 in.	Slightly moist, brown, medium sand and medium to fine gravel.	
			8-12 ft.	39 in.	0-2 in.	Dark brown slough from previous core.	
					2-16 in.	Dark brown, fine sand and silty clay with some fine gravel.	
					16-18 in.	Chunks of wood.	
					18-39 in.	Reddish brown, medium to fine sand with wood.	
						No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-08	340233.9602	670082.5190	0-4 ft.	30 in.	0-13 in.	Dry, medium gray, fine silt and sand mixed with pea gravel and rock.	Corresponds with TMW-1.
					13-25 in.	Fill, wood chips, glass, gravel, rusty metal, some medium sand.	Core to 16 ft., barely into water at 12 ft., clay in next core, pushed well deeper to 14-14.8 ft.
					25-30 in.	Saturated, dark brown, fine silty sand.	
			4-8 ft.	48 in.	0-6 in.	Slough.	
					6-37 in.	Moist, medium gray, clay-like silty clay.	
					37-39 in.	Moist, dark brown wood material.	
					39-48 in.	Moist, light brown, very silty fine sand.	PID hit of 0.5 ppm at the 21-32 in. interval in the 12-16 ft. core.
			8-12 ft.	48 in.	0-6 in.	Slough.	
					6-14 in.	Moist, light brown, very silty fine sand.	
					14-24 in.	Slightly moist, medium tan, fine silty sand with pea gravel and dark brown lens.	Deep grab sample.
					24-29 in.	Moist, light brown, very silty fine sand.	
					29-36 in.	Fill material, moist brick and crushed concrete.	VOA collected at 32 in. from the 12-16 ft. core.
					36-48 in.	Moist, light brown, fine silty sand.	
			12-16 ft.	44 in.	0-4 in.	Slough.	Remainder of sample collected at 12-32 in. from the 12-16 ft. core
					4-10 in.	Wet, light brown, silty fine sand.	
					10-21 in.	Saturated, dark brown, fine sand with some silt and wood chips, petroleum odor.	
					21-32 in.	Saturated, dark gray, fine sand with some pea gravel and sea shells.	
					32-48 in.	Saturated, green-gray marbled, very silty fine sand.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-09	340122.3614	670059.2326	0-4 ft.	36 in.	0-12 in.	Fill, dry, medium tan clay and sand.	Corresponds with TMW-2/TMW-8
					12-18 in.	Dry, medium brown, medium-fine sand with some pea gravel.	
					18-36 in.	Damp, dark brown, medium to fine sand with pea gravel, some chunks of coal (old coal odor).	*Refusal at 7 ft., wood core (old coal odor) moved 1 ft. over, pre-probed to 8 ft., cored 8-12 ft. in second borehole.
			4-7 ft.*	32 in.	0-8 in.	Slough.	
					8-14 in.	Moist, dark brown, fine to medium sand with some coal (old coal odor) and pea gravel.	
					14-18 in.	Saturated, medium to dark brown, medium to fine sand with little pea gravel.	Deep grab sample.
					18-32 in.	Saturated, wood (old coal odor).	VOA collected at 32-36 in. from 0-4 ft. core.
			8-12 ft.	48 in.	0-9 in.	Slough.	
					9-40 in.	Saturated, wood (old coal odor).	
					40-48 in.	Saturated, medium brown, fine silty sand. No PID hits.	Remainder of sample collected at 20-36 in. from 0-4 ft. core.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-10	340141.8184	669992.8250	0-4 ft.	48 in.	0-10 in.	Wet, brown, medium sand and medium to fine gravel, some silty fine sand.	No PID hits.
					10-15 in.	Moist, brown, medium sand and medium to fine gravel.	Deep grab sample.
					15-34 in.	Dry, brown, silty fine sand with lots of fine to coarse gravel.	VOA collected at 23 in. from 4-8 ft. core.
					34-48 in.	Slightly moist, brown silt with some fine sand and fine gravel.	Remainder of sample collected at 31-48 in from 8-12 ft. core.
			4-8 ft.	48 in.	0-3 in.	Moist, brown silt with some fine sand and fine gravel.	
					3-6 in.	Wet, gray-brown, fine sand with silt and clay and fine gravel.	
					6-14 in.	Moist, brown, silty fine sand and lots of fine gravel.	
					14-23 in.	Slightly moist, dark brown to black silt with some fine gravel.	
			8-12 ft.	48 in.	0-7 in.	Wet, gray, fine sand with silt and clay and fine gravel.	
					7-27 in.	Very moist, gray, silty clay.	
					27-31 in.	Moist, brownish-gray, medium to coarse sand and some fine gravel.	
					31-32 in.	Moist, dark brown to black, medium to fine gravel.	
					32-34 in.	Moist, greenish-brown, medium sand.	
					34-38 in.	Moist, dark brown, coarse sand.	
					38-48 in.	Moist, black, fine silty sand (ash) with some black chunks of gravel.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-11	340297.1220	669984.8255	0-4 ft.	30 in.	0-11 in.	Dry, medium brown, fine medium sand with some pea gravel.	Corresponds with TMW-6.
					11-30 in.	Dry, gray-black, very silty fine sand with some coal, bits of metal and gravel (old coal odor).	First -hit concrete refusal at about 2 ft. below ground level (bgl).
			4-8 ft.	38 in.	0-4 in.	Slough.	
					4-10 in.	Dark brown, medium fine sand with gravel.	Second - moved 1 ½ft. same as above.
					10-16 in.	Wet, very light gray, marl looking limestone and gravel.	Third - moved 10 ft. same as above.
					16-20 in.	Wet, dark brown, fine silty sand with wood (old coal odor).	Fourth - moved 15 ft. hit concrete refusal at 1 ft.
					20-32 in.	Wet, light tan, fine marl looking limestone with black streaking (old coal odor).	Fifth - shifted 3 ft. same as above.
					32-34 in.	Wet, light green, fine medium sand with black streaking (old coal odor).	Sixth shift refusal at 2 ft.
					34-38 in.	Wet, light gray, marl looking limestone with some gravel.	Seventh shift refusal at 1 ft.
			8-12 ft.	19 in.	0-4 in.	Slough.	Eighth shift refusal at 2 ft.
					4-19 in.	Wet, dark brown, fine silty sand with lots of wood chips (old coal odor).	Ninth - able to core to 16 ft. bgl.
			12-16 ft.	39 in.	0-4 in.	Slough.	Deep grab sample. VOA not collected
					4-13 in.	Wet, dark brown, coarse sand and gravel with some silt.	
					13-19 in.	Wet, dark brown, coarse sand mixed with wood (old coal smell).	Metal samples only collected at 32-34 in. from 4-8 ft. core.
					19-39 in.	Wet, dark green-gray, fine sand with silt and some sea shells.	PID=0.0

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-12	340145.4582	669915.8708	0-4 ft.	48 in.	0-6 in.	Dry, medium brown sand with medium to fine gravel.	Corresponds with TMW-6.
					6-48 in.	Dry, gray-brown, crushed limestone, medium to fine sand with medium to fine gravel.	Deep grab sample.
			4-8 ft.	38 in.	0-12 in.	Dry, gray brown, crushed limestone, medium to fine silty sand with medium to fine gravel.	VOA collected at 17-24 in. of 8-12 ft. core.
					12-23 in.	Moist, dark brown, silty fine sand with lots of fine gravel.	Remainder of sample collected at 3-24 in. from 8-12 ft. core.
					23-48 in.	Moist, black with sectional gray areas, medium to fine sand (appears to be coal) with some fine gravel.	
			8-12 ft.	48 in.	0-4 in.	Same as above.	
					4-7 in.	Slightly moist, brownish-gray crushed limestone type material with fine gravel.	
					7-12 in.	Moist, dark gray, fine silty with some fine gravel.	
					12-17 in.	Moist, dark gray, fine sand with some silt.	
					17-24 in.	Moist, dark gray, clayey silty sand.	
					24-32 in.	Brown clay with some mottling and some metal shavings.	
					32-34 in.	Red brick chunk.	
					34-48 in.	A little medium sand and fine gravel with shredded wood. No PID hits.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-13	340165.4982	669953.1525	0-4 ft.	42 in.	0-24 in.	Dry, light brown- gray, fine sand, silt, and pea gravel (looks like fill).	First - refusal at 6 ft. black tip strong gasoline odor PID=25 ppm on cutting shoe.
					24-42 in.	Slightly moist, same as above but darker gray.	
						Refusal at 6 ft. PID=50	Second - move 1 ft. prep to probe 0-3.5 ft. used large pre-probe could not remove rod and large pre-probe, pushed the pre-probe bgl then abandoned in hole.
			4-6 ft.	38 in.	0-14 in.	Slough	
					14-19 in.	Moist, blue-gray, silty fine sand and medium sand with gravel.	
					19-26 in.	Wet, dark gray, fine very silty sand.	
					26-38 in.	Wet, black, fine very silty sand (jelly like) with very strong hydrocarbon odor. PID=50	Third - moved 2 ft. over, macro core refusal at 5 ft., strong odor. Deep grab sample. VOA collected at 36 in. from 4-6 ft. core. Remainder of sample collected at 26-38 in. from 4-6 ft. core.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-14	340177.8267	669923.9250	0-4 ft.	41 in.	0-23 in.	Dry, slightly moist, tan, crushed limestone, medium to fine sand with fine gravel.	Deep grab sample.
					23-41 in.	Slightly moist, brown, crushed limestone, medium to fine sand with fine gravel.	VOA collected at 39-40 in. from 8-12 ft. core.
			4-8 ft.	48 in.	0-6 in.	Same as above.	
					6-18 in.	Moist, brown, medium sand with trace of fine gravel.	Remainder of sample collected at 30-48 in. from 8-12 ft. core.
					18-34 in.	Moist, brown, medium to coarse sand with fine gravel.	
					34-48 in.	Wet, brown, medium to coarse sand with fine gravel.	
			8-12 ft.	48 in.	0-38 in.	Same as above.	
					38-48 in.	Moist, black silt with specks of gray and trace of fine gravel. No PID hits.	

Location Coordinates: Michigan Georef NAD 1983 meters

* PID reading units are parts per million (ppm).

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-01	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	160			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	270			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	bis(2-Ethylhexyl)phthalate	650			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,800,000		10,000,000	C	10,000,000	C	10,000,000	C
	Chrysene (Q)	210			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	450			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Naphthalene	240			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	260			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	480			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Polychlorinated biphenyls [PCBs] (J,T)	210			NLL		NLL		NLL		3,000,000		16,000,000		240,000		7,900,000		810,000		1,000	T	1,000	T	1,000	T	1,000	T
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	25		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	57		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.33			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	0.63		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	50		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	4.7		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	36		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.14		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	12,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	61		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	210		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.23		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Nickel (B)	19		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.68		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.40		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	11			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	88		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	
SB-02	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Fluoranthene	210			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Phenanthrene	160			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	150			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	3.4		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	37		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.30			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Chromium [Total] (H)	10		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	4.7		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	7.7		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.15		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	12,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	12		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	300		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Nickel (B)	11		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.41		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	12			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	43		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-03	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthene	520			300,000		880,000		4,400		190,000,000		350,000,000		81,000,000		81,000,000		97,000,000		41,000,000		130,000,000		180,000,000		150,000,000	
	Anthracene	890			41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	1,400			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	1,800			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	650	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	590	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	1,300			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Chrysene (Q)	1,700			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	650			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Naphthalene	570			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	3,500			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	3,300			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	2.0			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	22		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	120		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	1.6			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Chromium [Total] (H)	12		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	7.4		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	71		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	1.8		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	49,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	340		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	380		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	3.2	N	0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Molybdenum (B)	3.4			1.5		4.2		16	X	NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Nickel (B)	21		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	2.1		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.29		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	21			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	550		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

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Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-04	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No semi-volatile organic compounds																											
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	3.6		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	33		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.23			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Chromium [Total] (H)	7.7		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	3.7		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	4.3		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Iron (B)	10,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	3.8		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	250		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	8.8		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.21		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	8.9			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	20		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-05	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthylene	170			5,900		17,000		ID		1,600,000		3,000,000		2,200,000		2,200,000		2,700,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Anthracene	1,500			41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	3,400			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	4,100			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	1,500			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	1,600			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	3,300			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Chrysene (Q)	3,600			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Dibenzo(a,h)anthracene (Q)	550			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Fluoranthene	7,200			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Fluorene	350			390,000		890,000		5,300		580,000,000		1,000,000,000	D	130,000,000		130,000,000		150,000,000		27,000,000		87,000,000		120,000,000		100,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	1,600			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Naphthalene	600			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	3,400			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	6,800			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	8.0			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	23		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	360		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	1.7			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	3.7		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	18		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	6.3		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	60		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	3.3		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	92,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	1,300		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	340		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	2.5		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Molybdenum (B)	3.3			1.5		4.2		16	X	NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Nickel (B)	20		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	1.1		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.59		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	20			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	1,300		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-06	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No semi-volatile organic compounds detected																											
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	2.7		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	27		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Chromium [Total] (H)	7.5		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	4.1		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	4.9		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Iron (B)	7,400	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	9.7		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	240		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	8.3		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.27		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	8.6			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	24		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-07	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthene	250			300,000		880,000		4,400		190,000,000		350,000,000		81,000,000		81,000,000		97,000,000		41,000,000		130,000,000		180,000,000		150,000,000	
	Acenaphthylene	210			5,900		17,000		ID		1,600,000		3,000,000		2,200,000		2,200,000		2,700,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Anthracene	800			41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	1,900			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	2,300			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	880			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	650			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	1,800			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Chrysene (Q)	1,900			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	4,200			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Fluorene	290			390,000		890,000		5,300		580,000,000		1,000,000,000	D	130,000,000		130,000,000		150,000,000		27,000,000		87,000,000		120,000,000		100,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	740			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Naphthalene	200			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	2,700			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	3,300			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	4.4			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	9.8		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	92		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	1.4			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	1.4		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	13		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	7.0		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	46		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	7.3		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	44,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	390		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	270		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.6		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Molybdenum (B)	1.7			1.5		4.2		16	X	NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Nickel (B)	17		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.78		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.21		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	17			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	650		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-08	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	1,400			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Chrysene (Q)	1,100	T		NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Pyrene	1,200	T		480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	0.86		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	9.0		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Chromium [Total] (H)	3.3		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	1.0		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	4.2		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Iron (B)	3,300	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	4.5		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	50		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	3.4		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.42		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	5.9			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	10		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

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					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-09	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Toluene (I)	310			16,000		16,000		2,800		250,000	C	250,000	C	2,800,000		5,100,000		3,300,000		250,000	C	250,000	C	250,000	C	250,000	C
	1,2,4-Trimethylbenzene (I)	170			2,100		2,100		570		110,000	C	110,000	C	21,000,000		500,000,000		25,000,000		110,000	C	110,000	C	110,000	C	110,000	C
	Xylenes (I)	580			5,600		5,600		700		150,000	C	150,000	C	46,000,000		61,000,000		54,000,000		150,000	C	150,000	C	150,000	C	150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	89	T		41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	460			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	820			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	240			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	420			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	510			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Chrysene (Q)	680			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Dibenzofuran	190	T		ID		ID		1,700		ID		ID		ID		ID		ID		ID		ID		ID		ID	
	Fluoranthene	1,000			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	350			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	2-Methylnaphthalene	580			57,000		170,000		ID		ID		ID		ID		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	430	X		35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	1,100			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	870			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	1.3			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	8.4		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	77		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.7			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	0.34		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	10		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	3.9		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	41		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	17		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	15,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	170		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	170		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.15		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Molybdenum (B)	1.0			1.5		4.2		16	X	NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Nickel (B)	11		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.80		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.12		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	13			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	140		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
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A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-10	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	2-Butanone [MEK] (I)	360	7		260,000		760,000		44,000		27,000,000	C	27,000,000	C	29,000,000		29,000,000		35,000,000		27,000,000	C,D D	27,000,000	C,D D	27,000,000	C,D D	27,000,000	C,D D
	Toluene (I)	220			16,000		16,000		2,800		250,000	C	250,000	C	2,800,000		5,100,000		3,300,000		250,000	C	250,000	C	250,000	C	250,000	C
	1,2,4-Trimethylbenzene (I)	140			2,100		2,100		570		110,000	C	110,000	C	21,000,000		500,000,000		25,000,000		110,000	C	110,000	C	110,000	C	110,000	C
	Xylenes (I)	400			5,600		5,600		700		150,000	C	150,000	C	46,000,000		61,000,000		54,000,000		150,000	C	150,000	C	150,000	C	150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthene	200			300,000		880,000		4,400		190,000,000		350,000,000		81,000,000		81,000,000		97,000,000		41,000,000		130,000,000		180,000,000		150,000,000	
	Anthracene	520			41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	1,100			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	1,400			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	490			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	620			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	1,200			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Carbazole	190	T		9,400		39,000		1,100		NLV		NLV		NLV		NLV		NLV		530,000		2,400,000		3,400,000		2,900,000	
	Chrysene (Q)	1,300			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Dibenzofuran	160	T		ID		ID		1,700		ID		ID		ID		ID		ID		ID		ID		ID		ID	
	Fluoranthene	3,000			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Fluorene	250			390,000		890,000		5,300		580,000,000		1,000,000,000	D	130,000,000		130,000,000		150,000,000		27,000,000		87,000,000		120,000,000		100,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	530			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	2-Methylnaphthalene	630	X		57,000		170,000		ID		ID		ID		ID		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	470	X		35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	2,400			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	2,800			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.39			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	6.4		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	41		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.49			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	0.25		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	10		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	4.4		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	17		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.21		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	12,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	27		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	140		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	13		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	1.2		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	13			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	70		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-11	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No semi-volatile organic compounds detected																											
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	3.4		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	93		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.37			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Chromium [Total] (H)	13		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	3.0		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	8.3		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.52		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	8,600	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	2.5		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	210		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	13		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Silver (B)	0.10		1.0	4.5		13		0.1	M	NLV		NLV		NLV		NLV		NLV		2,500		9,000		9,800		9,400	
	Vanadium	17			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	22		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

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SB-12	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected																											
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Acenaphthene	94	T		300,000		880,000		4,400		190,000,000		350,000,000		81,000,000		81,000,000		97,000,000		41,000,000		130,000,000		180,000,000		150,000,000	
	Anthracene	330			41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	540			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	570			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	170	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	250			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	490			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Butyl benzyl phthalate	530			310,000	C	310,000	C	26,000	X	NLV		NLV		NLV		NLV		NLV		310,000	C	310,000	C	310,000	C	310,000	C
	Chrysene (Q)	540			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Di-n-octyl phthalate	340			100,000,000		140,000,000	C	ID		NLV		NLV		NLV		NLV		NLV		6,900,000		20,000,000		36,000,000		26,000,000	
	Fluoranthene	1,300			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Fluorene	110	T		390,000		890,000		5,300		580,000,000		1,000,000,000	D	130,000,000		130,000,000		150,000,000		27,000,000		87,000,000		120,000,000		100,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	230	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Naphthalene	200			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	1,000			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	1,000			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	3.6		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	19		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Chromium [Total] (H)	5.8		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	2.7		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	5.8		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.16		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	6,300	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	9.8		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	160		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Nickel (B)	7.1		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.31		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	6.6			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	20		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-13	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	51,000			100		100		4,000	X	1,600		8,400		13,000		34,000		45,000		180,000		400,000	C	400,000	C	400,000	C
	n-Butylbenzene	20,000			1,600		4,600		ID		ID		ID		ID		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000	
	sec-Butylbenzene	9,400			1,600		4,600		ID		ID		ID		ID		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000	
	Ethylbenzene (I)	19,000			1,500		1,500		360		87,000		140,000	C	720,000		1,000,000		2,400,000		140,000	C	140,000	C	140,000	C	140,000	C
	Isopropyl benzene	23,000			91,000		260,000		ID		390,000	C	390,000	C	1,700,000		1,700,000		2,000,000		390,000	C	390,000	C	390,000	C	390,000	C
	n-Propylbenzene (I)	58,000			1,600		4,600		NA		ID		ID		ID		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000	
	Toluene (I)	4,700			16,000		16,000		2,800		250,000	C	250,000	C	2,800,000		5,100,000		3,300,000		250,000	C	250,000	C	250,000	C	250,000	C
	1,2,4-Trimethylbenzene (I)	11,000			2,100		2,100		570		110,000	C	110,000	C	21,000,000		500,000,000		25,000,000		110,000	C	110,000	C	110,000	C	110,000	C
	1,3,5-Trimethylbenzene (I)	4,600			1,800		1,800		1,100		94,000	C	94,000	C	16,000,000		380,000,000		19,000,000		94,000	C	94,000	C	94,000	C	94,000	C
	Xylenes (I)	31,500			5,600		5,600		700		150,000	C	150,000	C	46,000,000		61,000,000		54,000,000		150,000	C	150,000	C	150,000	C	150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	930	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Chrysene (Q)	1,200	T		NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	2,200			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Fluorene	1,100	T		390,000		890,000		5,300		580,000,000		1,000,000,000	D	130,000,000		130,000,000		150,000,000		27,000,000		87,000,000		120,000,000		100,000,000	
	2-Methylnaphthalene	66,000	X		57,000		170,000		ID		ID		ID		ID		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	15,000			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	5,300			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	2,700			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.73			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	8.3		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	64		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.57			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	0.55		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	11		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	5.1		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	27		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	1.7		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	11,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	79		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	200		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Molybdenum (B)	1.2			1.5		4.2		16	X	NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Nickel (B)	14		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	1.0		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Silver (B)	0.12		1.00	4.50		13.00		0.10	M	NLV		NLV		NLV		NLV		NLV		2500.00		9000.00		9800.00		9400.00	
	Vanadium	14			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	110		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection						Indoor Air				Ambient Air (Y)						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Footnotes	Residential & Commercial I Finite VSIC for 5 Meter Source Thickness	Footnotes	Industrial and Commercial II, III, & IV Infinite Source VSIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SB-14	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	n-Butylbenzene	150			1,600		4,600		ID		ID		ID		ID		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000	
	n-Propylbenzene (I)	150			1,600		4,600		NA		ID		ID		ID		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	98	T		41,000		41,000		ID		1,000,000,000	D	1,000,000,000	D	1,400,000,000		1,400,000,000		1,600,000,000		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	340			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	470			NLL		NLL		NLL		ID		ID		ID		ID		ID		20,000		80,000		160,000		110,000	
	Benzo(k)fluoranthene (Q)	170			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		200,000		800,000		1,600,000		1,100,000	
	Benzo(g,h,i)perylene	200	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	310			NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		2,000		8,000		16,000		11,000	
	Chrysene (Q)	460			NLL		NLL		NLL		ID		ID		ID		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	720			730,000		730,000		5,500		1,000,000,000	D	1,000,000,000	D	740,000,000		740,000,000		890,000,000		46,000,000		130,000,000		240,000,000		170,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	180	T		NLL		NLL		NLL		NLV		NLV		NLV		NLV		NLV		20,000		80,000		160,000		110,000	
	2-Methylnaphthalene	160	T		57,000		170,000		ID		ID		ID		ID		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	140			35,000		100,000		870		250,000		470,000		300,000		300,000		350,000		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	490			56,000		160,000		5,300		2,800,000		5,100,000		160,000		160,000		190,000		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	740			480,000		480,000		ID		1,000,000,000	D	1,000,000,000	D	650,000,000		650,000,000		780,000,000		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No pesticides or polychlorinated biphenyls detected																											
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.47			4.3		4.3		94	X	NLV		NLV		NLV		NLV		NLV		180		670		730		700	
	Arsenic	6.4		5.8	4.6		4.6		70	X	NLV		NLV		NLV		NLV		NLV		7.6		37		46		41	
	Barium (B)	74		75	1,300		1,300		790	G,X	NLV		NLV		NLV		NLV		NLV		37,000		130,000		150,000		140,000	
	Beryllium	0.53			51		51		330	G	NLV		NLV		NLV		NLV		NLV		410		1,600		1,600		1,600	
	Cadmium (B)	0.23		1.2	6.0		6.0		5.4	G,X	NLV		NLV		NLV		NLV		NLV		550		2,100		2,100		2,100	
	Chromium [Total] (H)	8.4		18																								
	Chromium [VI]				30		30		3.3		NLV		NLV		NLV		NLV		NLV		2,500		9,200		10,000		9,600	
	Cobalt	5.4		6.8	0.8		2.0		2.0		NLV		NLV		NLV		NLV		NLV		2,600		9,000		10,000		10,000	
	Copper (B)	21		32	5,800		5,800		120	G	NLV		NLV		NLV		NLV		NLV		20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.25		0.39	4.0		4.0		0.1		NLV		NLV		NLV		NLV		NLV		12		250		250		250	
	Iron (B)	13,000	D	12,000	6.0		6.0		NA		NLV		NLV		NLV		NLV		NLV		160,000		580,000		620,000		600,000	
	Lead (B)	100		21	700		700		4,900	G,M,X	NLV		NLV		NLV		NLV		NLV		400		900	DD	400		400	
	Manganese (B)	140		440	1.0		1.0		88	G,X	NLV		NLV		NLV		NLV		NLV		25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.06		0.13	1.7		1.7		0.05	M	48		89		52		52		62		160		580		620		600	
	Nickel (B)	12		20	100		100		120	G	NLV		NLV		NLV		NLV		NLV		40,000		150,000		160,000		150,000	
	Selenium (B)	0.79		0.41	4.0		4.0		0.4		NLV		NLV		NLV		NLV		NLV		2,600		9,600		10,000		10,000	
	Vanadium	13			72		990		190		NLV		NLV		NLV		NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	86		47	2,400		5,000		260	G	NLV		NLV		NLV		NLV		NLV		170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 5

TEMPORARY MONITORING WELL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	PHYSICAL PARAMETERS	WELL CONSTRUCTION	COMMENTS
	Northing	Easting				
TMW-1	340233.7644	670082.7328	N/A	Cond = N/A pH = N/A T = N/A ORP = N/A TDS = N/A	Screen Type: 1 in. Polyvinyl chloride (PVC), 5 ft. length # 10 slot. Aquifer – Drift Depth – 14.8ft. SWL – 12.9ft.	Did not produce well enough to collect a sample. Corresponding soil boring – SB-08.
TMW-2/ TMW-8	340122.9482	670059.0219	Clear with slight black cast. VOA – have dark sediment in bottles.	Cond = 1093 pH = 6.74 T = 14.3 ORP = - 202 TDS = N/A	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 9.78ft. SWL – 5.5ft. Top of Casing Elevation 6.2ft.	Corresponding soil boring – SB-09. Strong decomposing odor – rotten eggs. Odor remained during all sampling.
TMW-3	340153.1978	669970.0588	Slightly cloudy	Cond = 1480 pH = 10.88 T = 14.3 ORP = - 276 TDS = N/A	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 9.89ft. SWL – 6.13ft.	Corresponding soil boring – N/A. Odor may be oil or gas or deterioration of material.

TABLE 5

TEMPORARY MONITORING WELL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	PHYSICAL PARAMETERS	WELL CONSTRUCTION	COMMENTS
	Northing	Easting				
TMW-4	340232.2027	669928.3018	Clear	Cond = 1246 pH = 7.54 T = 13.4 ORP = - 134 TDS = 871	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 9.5ft. SWL – 5.0ft.	Corresponding soil boring – SB-04 Purge water very gray at start pulled 2 ft. up from bottom.
TMW-5	340262.9583	669970.4809	Slightly cloudy	Cond = 1553 pH = 6.77 T = 15.3 ORP = - 125 TDS = N/A	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 9.6ft. SWL – 5.13ft.	Corresponding soil boring – SB-03
TMW-6	340290.1834	669994.4373	Clear Small amount of fines in VOA vials	Cond = 2199 pH = 6.32 T = 13.9 ORP = - 302 TDS = 1575	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 13.26ft. SWL – 7.36ft.	Corresponding soil boring – SB-11

TABLE 5

TEMPORARY MONITORING WELL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	PHYSICAL PARAMETERS	WELL CONSTRUCTION	COMMENTS
	Northing	Easting				
TMW-7	340289.2586	670033.1464	Gray water with odor and sheen on top. (Sewage?)	Cond = 1871 pH = 6.36 T = 14.6 ORP = - 177 TDS = N/A	Screen Type: 1 in. PVC, 5 ft. length # 10 slot. Aquifer – Drift Depth – 14.64ft. SWL – 6.27ft.	Corresponding soil boring – SB-06

N/A: Not Applicable or Not Available
Projected Coordinates: Michigan Georef NAD 1983 meters

Cond = Conductivity (μs/cm)
pH = Hydrogen Ionization Potential
T = Temperature (°C)
ORP = Oxidation Reduction Potential (millivolts)
TDS = Total Dissolved Solids (ppm – parts per million)
SWL = Static Water Level

Maritime Heritage Center
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TABLE 6

TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Residential & Commercial I Drinking Water Criteria	Footnotes	Industrial & Commercial II, III, & IV Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-2	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No volatile organic compounds detected								
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No semi-volatile organic compounds detected								
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Barium (B)	68		2,000	A	2,000	A	1,200	G,X
	Cyanide (P,R) [Total]	0.16		200	A	200	A	5.2	
	Iron (B)	1,200		300	E	300	E	NA	
	Manganese (B)	850		50	E	50	E	4,400	G,X
	Nickel (B)	4.5		100	A	100	A	120	G
TMW-3	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Benzene (I)	6.0		5.0	A	5.0	A	200	X
	2-Butanone [MEK] (I)	5.9		13,000		38,000		2,200	
	Ethylbenzene (I)	1.5		74	E	74	E	18	
	Toluene (I)	4.3		790	E	790	E	140	
	1,2,4-Trimethylbenzene (I)	5.6		63	E	63	E	17	
	1,3,5-Trimethylbenzene (I)	2.3		72	E	72	E	45	
	Xylenes (I)	9.6		280	E	280	E	35	
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Naphthalene	2.0		520		1,500		13	
	Phenol	80		4,400		13,000		210	
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Antimony	2.5		6.0	A	6.0	A	130	X
	Arsenic	31		10	A	10	A	150	X
	Barium (B)	18		2,000	A	2,000	A	1,200	G,X
	Chromium [Total] (H)	2.6							
	Chromium [VI]			100	A	100	A	11	
	Copper (B)	16		1,000	E	1,000	E	20	G
	Cyanide (P,R) [Total]	0.03		200	A	200	A	5.2	
	Iron (B)	4,600		300	E	300	E	NA	
	Lead (B)	21		4.0	L	4.0	L	28	G,X
	Manganese (B)	55		50	E	50	E	4,400	G,X
	Molybdenum (B)	34		73		210		800.0000	X
	Nickel (B)	31		100	A	100	A	120	G
	Vanadium	21		4.5		62		12	
	Zinc (B)	52		2,400		5,000	E	260	G

µg/l = microgram/liter
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.

Maritime Heritage Center
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TABLE 6

TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Residential & Commercial I Drinking Water Criteria	Footnotes	Industrial & Commercial II, III, & IV Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-4	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No volatile organic compounds detected								
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No semi-volatile organic compounds detected								
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Arsenic	6.5		10	A	10	A	150	X
	Barium (B)	100		2,000	A	2,000	A	1,200	G,X
	Copper (B)	2.2		1,000	E	1,000	E	20	G
	Cyanide (P,R) [Total]	0.008		200	A	200	A	5.2	
	Iron (B)	910		300	E	300	E	NA	
	Manganese (B)	100		50	E	50	E	4,400	G,X
	Nickel (B)	6.0		100	A	100	A	120	G
TMW-5	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No volatile organic compounds detected								
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No semi-volatile organic compounds detected								
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Arsenic	5.0		10	A	10	A	150	X
	Barium (B)	520		2,000	A	2,000	A	1,200	G,X
	Copper (B)	3.3		1,000	E	1,000	E	20	G
	Cyanide (P,R) [Total]	0.01		200	A	200	A	5.2	
	Iron (B)	30,000	D	300	E	300	E	NA	
	Lead (B)	14		4.0	L	4.0	L	28	G,X
	Manganese (B)	410		50	E	50	E	4,400	G,X
	Nickel (B)	4.5		100	A	100	A	120	G
	Zinc (B)	17		2,400		5,000	E	260	G

µg/l = microgram/liter
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.

Maritime Heritage Center
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TABLE 6

TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Residential & Commercial I Drinking Water Criteria	Footnotes	Industrial & Commercial II, III, & IV Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-6	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Benzene (I)	20		5.0	A	5.0	A	200	X
	Carbon disulfide (I,R)	3.6		800		2,300		ID	
	Ethylbenzene (I)	44		74	E	74	E	18	
	Isopropyl benzene	2.6		800		2,300		ID	
	Toluene (I)	1.1		790	E	790	E	140	
	1,2,3-Trichloropropane	2.4		42		120		NA	
	1,2,4-Trimethylbenzene (I)	4.6		63	E	63	E	17	
	Xylenes (I)	6.8		280	E	280	E	35	
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Acenaphthene	0.8		1,300		3,800		19	
	2,4-Dimethylphenol	16		370		1,000		380	
	Naphthalene	78		520		1,500		13	
	Phenanthrene	1.1		52		150		2.4	
	Pyrene	0.8		140	S	140	S	ID	
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Antimony	1.5		6.0	A	6.0	A	130	X
	Arsenic	9.6		10	A	10	A	150	X
	Barium (B)	320		2,000	A	2,000	A	1,200	G,X
	Cadmium (B)	1.0		5.0	A	5.0	A	4.5	G,X
	Chromium [Total] (H)	13							
	Chromium [VI]			100	A	100	A	11	
	Copper (B)	24		1,000	E	1,000	E	20	G
	Cyanide (P,R) [Total]	2.5		200	A	200	A	5.2	
	Cyanide (P,R) Amenable	0.1		200	A	200	A	5.2	
	Iron (B)	24,000	D	300	E	300	E	NA	
	Lead (B)	100		4.0	L	4.0	L	28	G,X
	Manganese (B)	730		50	E	50	E	4,400	G,X
	Nickel (B)	16		100	A	100	A	120	G
	Vanadium	10		4.5		62		12	
	Zinc (B)	290		2,400		5,000	E	260	G

µg/l = microgram/liter
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.

Maritime Heritage Center
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TABLE 6

TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Residential & Commercial I Drinking Water Criteria	Footnotes	Industrial & Commercial II, III, & IV Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-7	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No volatile organic compounds detected								
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No semi-volatile organic compounds detected								
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Barium (B)	150		2,000	A	2,000	A	1,200	G,X
	Cyanide (P,R) [Total]	0.04		200	A	200	A	5.2	
	Iron (B)	970		300	E	300	E	NA	
	Manganese (B)	1,600	D	50	E	50	E	4,400	G,X
	Nickel (B)	6.5		100	A	100	A	120	G
TMW-8	***VOLATILES***	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No volatile organic compounds detected								
	SEMI-VOLATILES	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No semi-volatile organic compounds detected								
	PESTICIDES/PCBS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	No pesticides or polychlorinated biphenyls detected								
	INORGANICS	*(µg/l)*		*(µg/l)*		*(µg/l)*		*(µg/l)*	
	Barium (B)	66		2,000	A	2,000	A	1,200	G,X
	Cyanide (P,R) [total]	0.16		200	A	200	A	5.2	
	Iron (B)	1,200		300	E	300	E	NA	
	Manganese (B)	840		50	E	50	E	4,400	G,X
	Nickel (B)	4.2		100	A	100	A	120	G

µg/l = microgram/liter
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.

Maritime Heritage Center
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TABLE 6

TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Residential & Commercial I Drinking Water Criteria	Footnotes	Industrial & Commercial II, III, & IV Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes

µg/l = microgram/liter
Qualifier definitions in Appendix C. Footnote definitions in Appendix D.
Shaded Criteria indicate an exceedance.

TABLE 7

GROUNDWATER MONITORING WELL DATA*

GROUNDWATER MONITORING WELL	LOCATION COORDINATES		GROUND ELEVATION	TOP OF CASING (TOC) ELEVATION	DEPTH TO WATER (from TOC)	WATER TABLE ELEVATION	DEPTH OF WELL (from TOC)	SCREEN LENGTH	SCREENED INTERVAL ELEVATION
	Northing	Easting							
TMW-1	340233.7644	670082.7328	96.58	97.93	13.26	84.67	15.61	5	82.32-87.32
TMW-2/ TMW-8	340122.9482	670059.0219	91.96	92.56	6.33	86.23	9.78	5	82.78-87.78
TMW-3	340153.1978	669970.0588	89.23	90.05	6.21	83.84	9.84	5	80.21-85.21
TMW-4	340232.2027	669928.3018	87.86	88.35	5.78	82.57	9.70	5	78.65-83.65
TMW-5	340262.9583	669970.4809	88.41	88.91	5.31	83.60	9.71	5	79.20-84.20
TMW-6	340290.1834	669994.4373	89.50	90.40	7.42	82.98	14.59	5	75.81-80.81
TMW-7	340289.2586	670033.1464	93.20	93.40	9.34	84.06	14.68	5	78.72-83.72
River 1	340146.5180	669855.6034	N/A	N/A	N/A	81.25	N/A	N/A	N/A
River 2	340307.5319	669890.5767	N/A	N/A	N/A	81.23	N/A	N/A	N/A

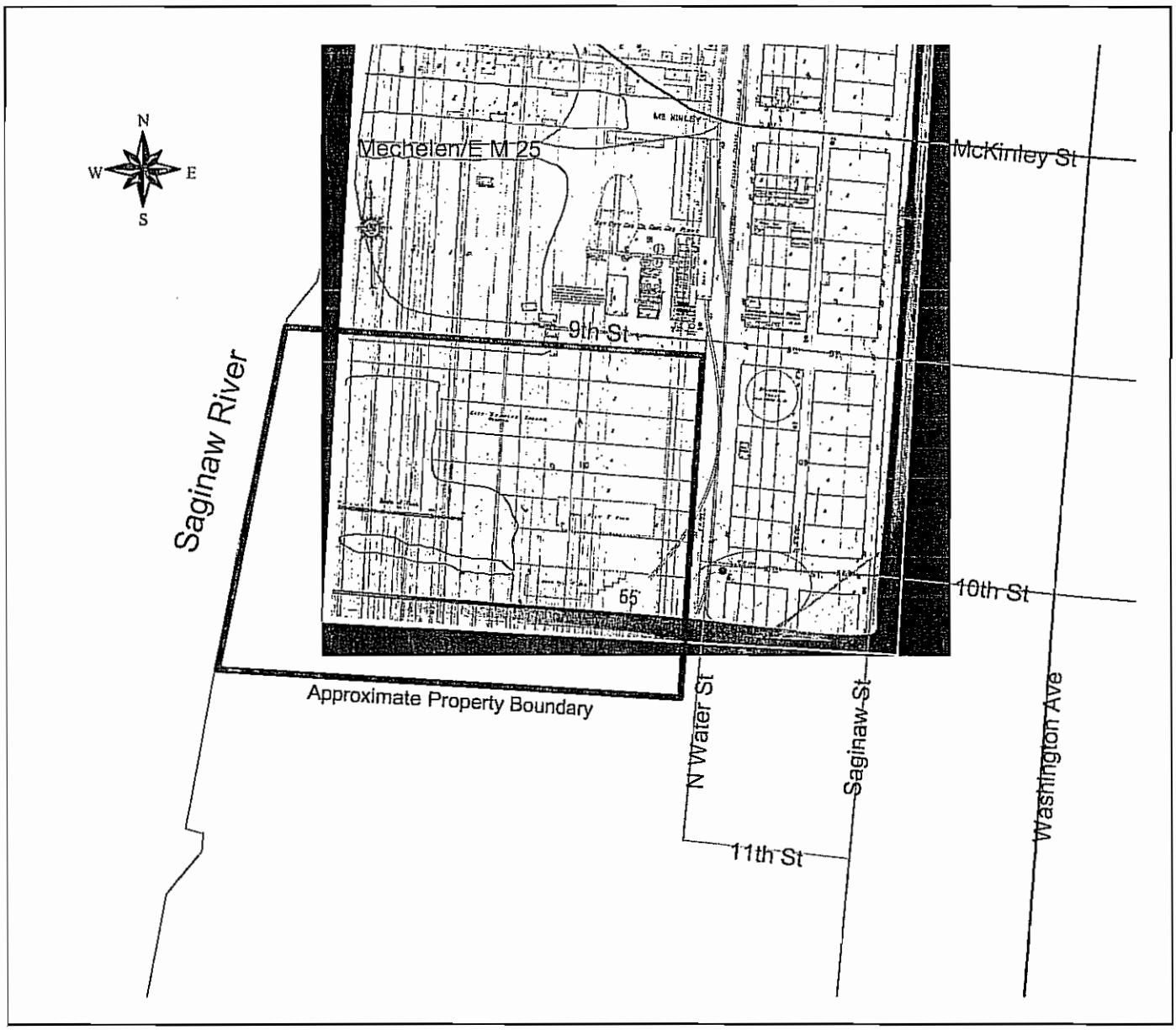
N/A: Not Applicable or Not Available
Location Coordinates: Michigan Georef NAD 1983 meters

* - All elevations in feet, referenced to an arbitrary elevation of 100.00 feet.

APPENDIX A

HISTORICAL DATA SEARCHES

1912 SANBORN

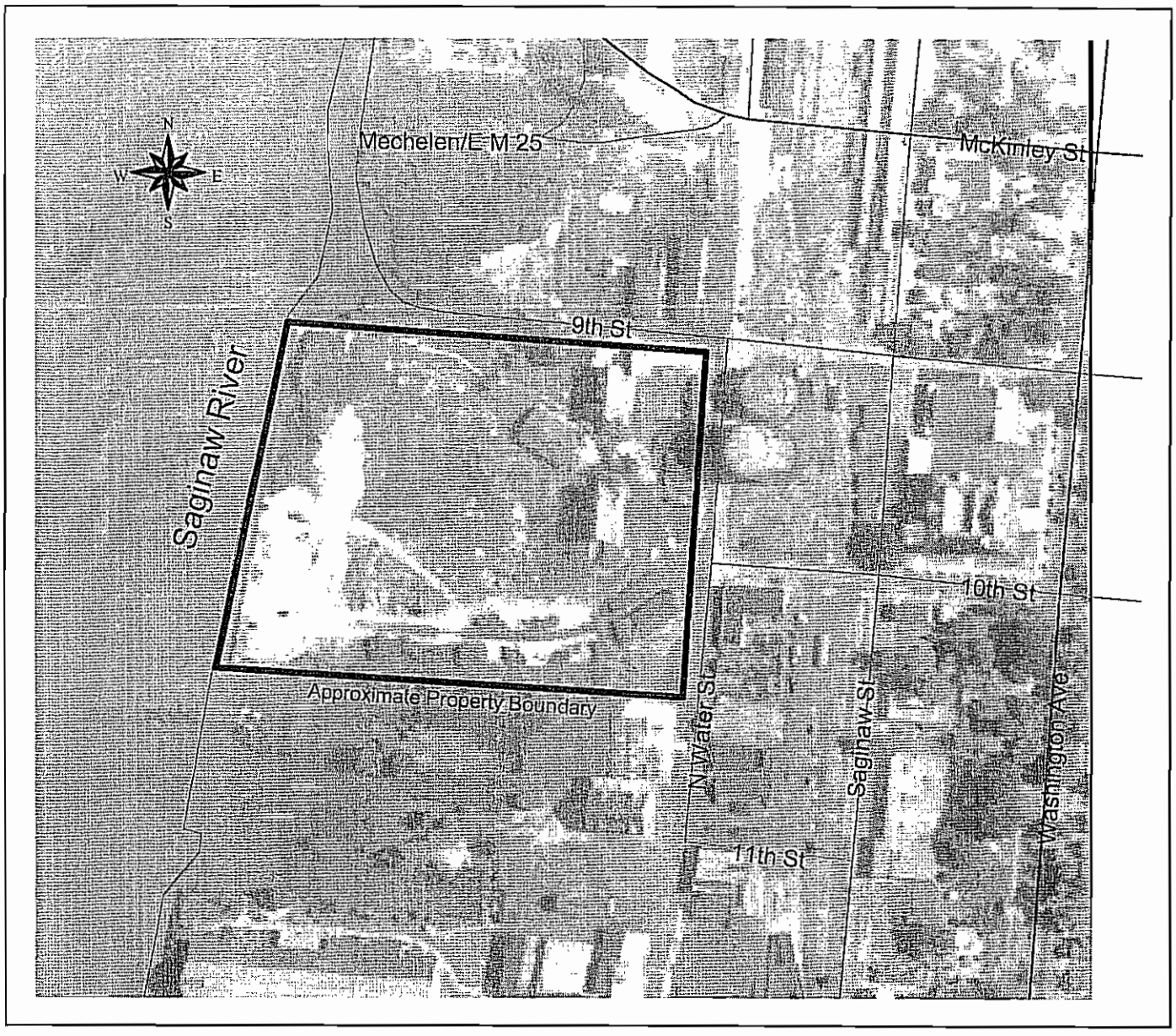


Source: Michigan Historical Library

400 0 400 800 Feet

Compiled 10/16/07 by JES
Done in ArcView 3.2a

1938 AERIAL



Source: Michigan State University Remote Sensing & GIS

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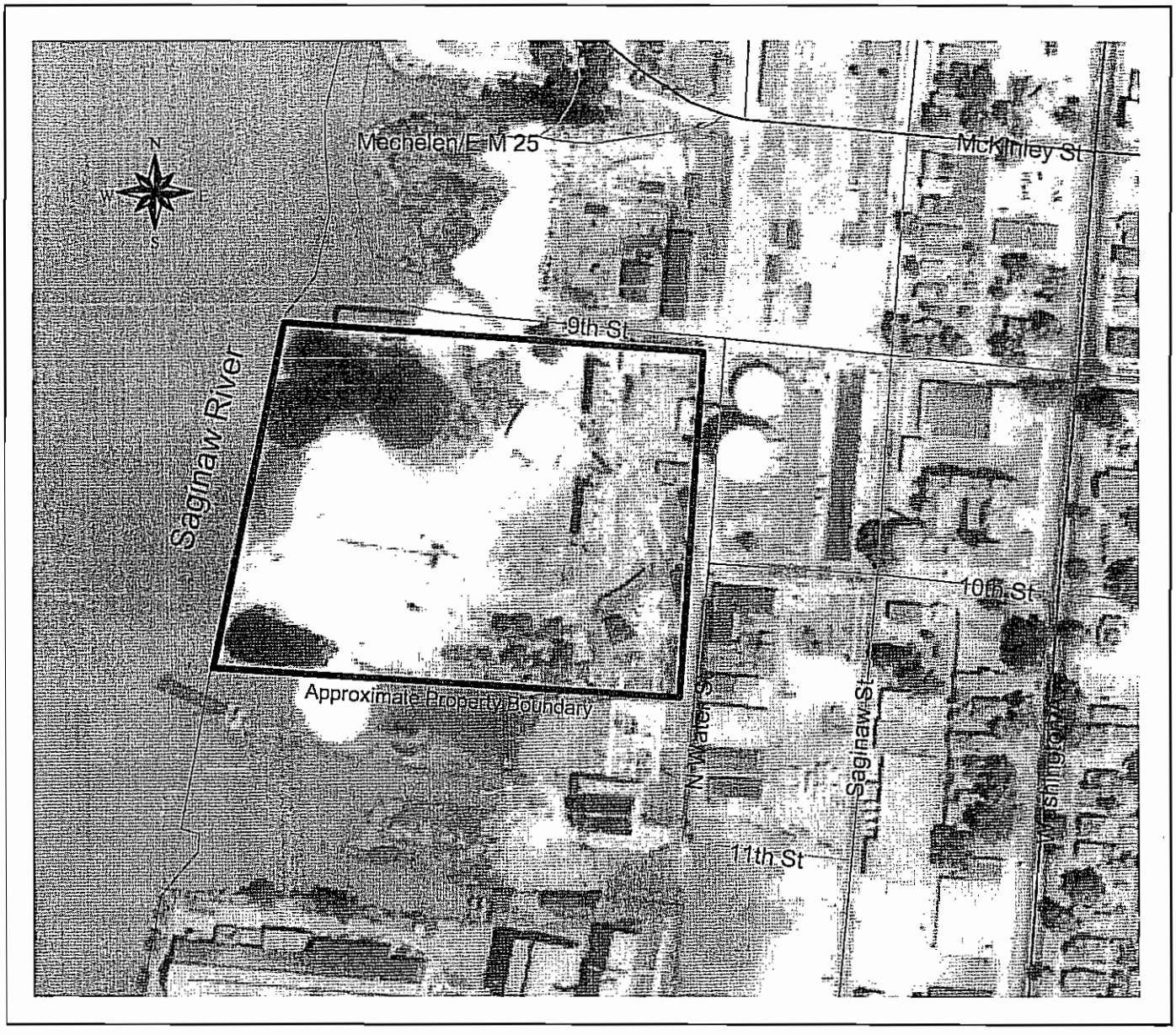
Compiled 10/16/07 by JES
Done in ArcView 3.2a

1950 AERIAL



Source: Michigan State University Remote Sensing & GIS

400 0 400 800 Feet

Compiled 10/16/07 by JES
Done in ArcView 3.2a

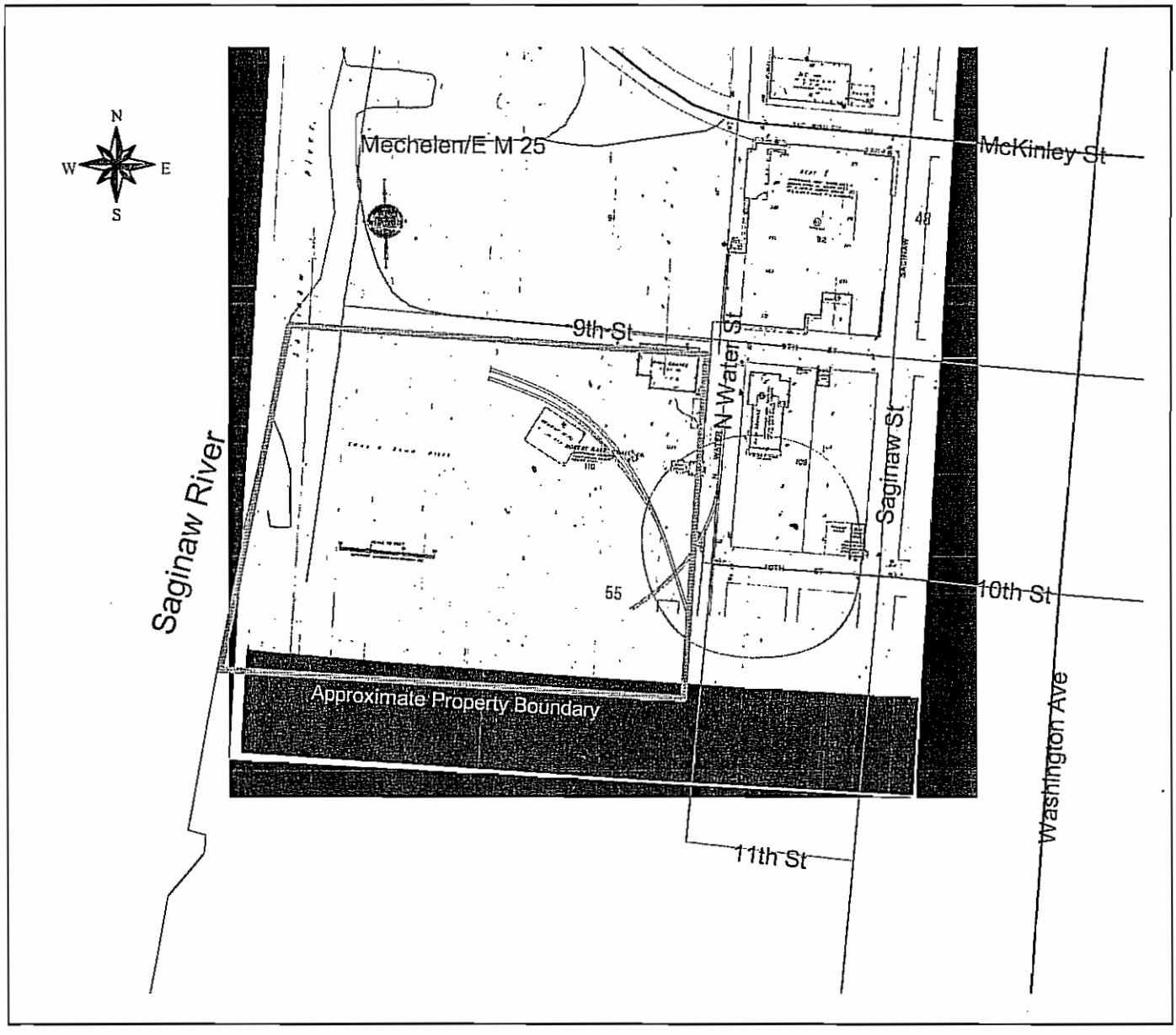
1963 AERIAL

Source: Michigan State University Remote Sensing & GIS

400 0 400 800 Feet

Compiled 10/16/07 by JES
Done in ArcView 3.2a

1967 SANBORN



Source: Michigan Historical Library

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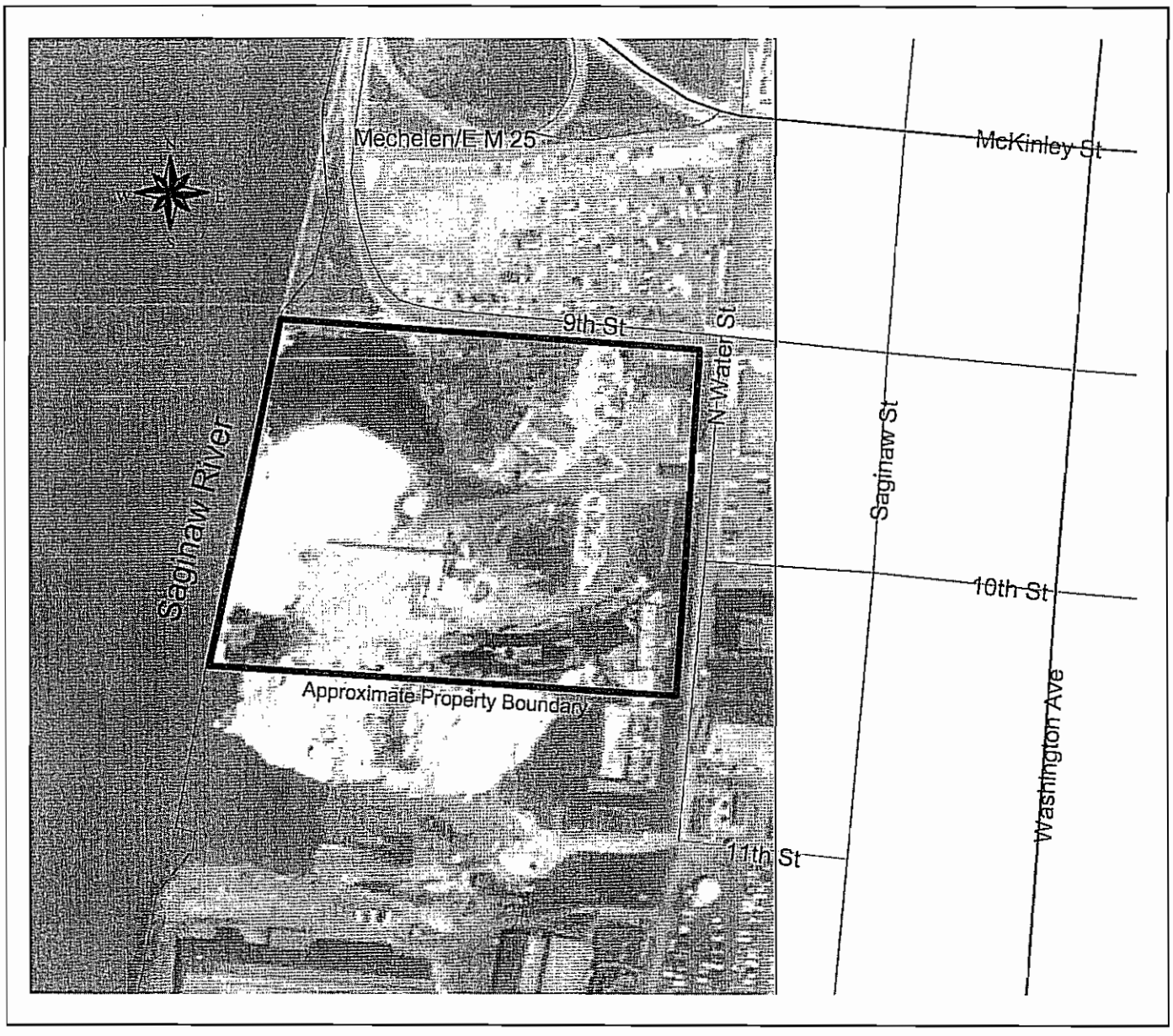
Compiled 10/16/07 by JES
Done in ArcView 3.2a

1969 AERIAL



Source: Michigan State University Remote Sensing & GIS

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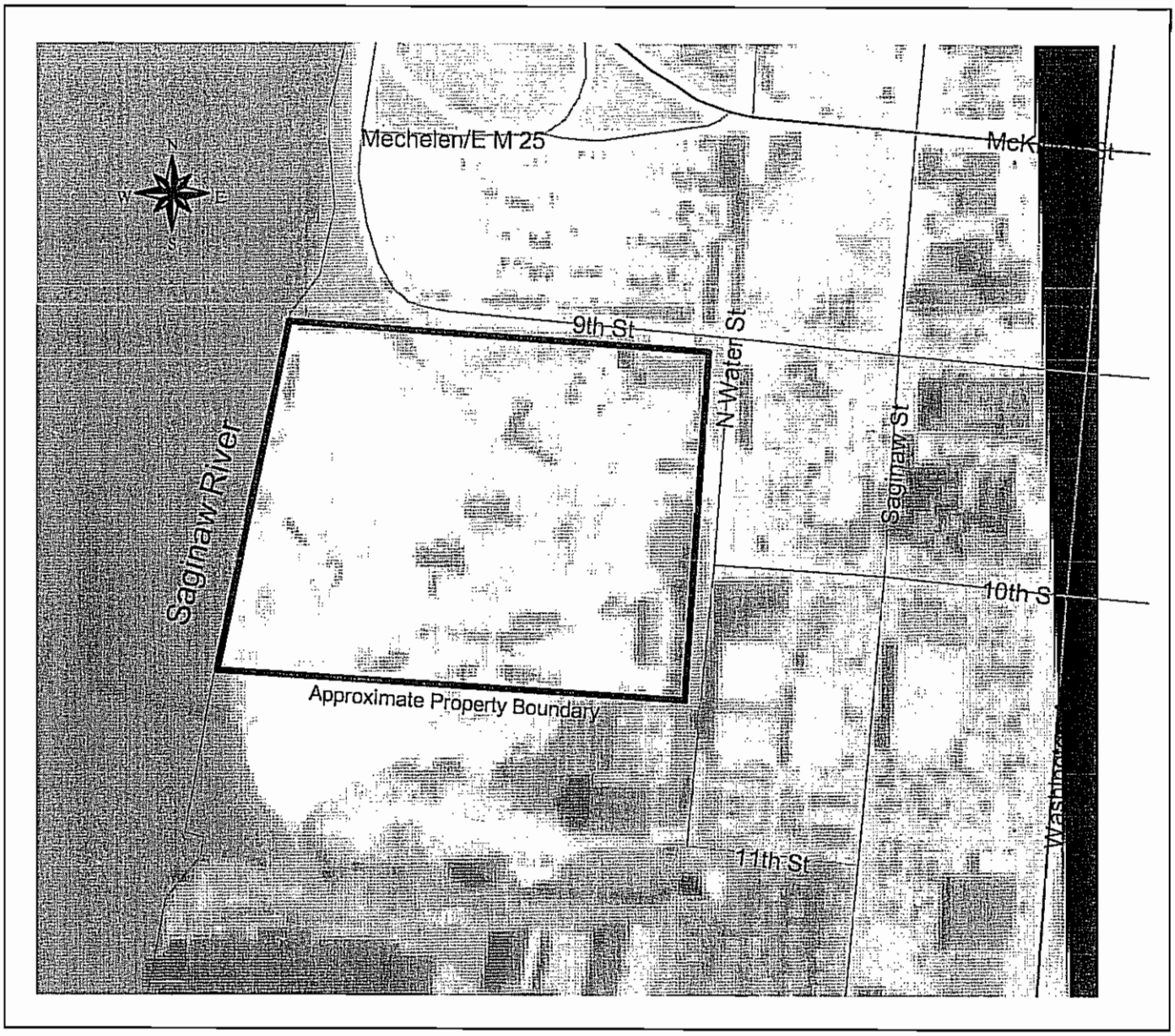
Compiled 10/16/07 by JES
Done in ArcView 3.2a

1978 AERIAL

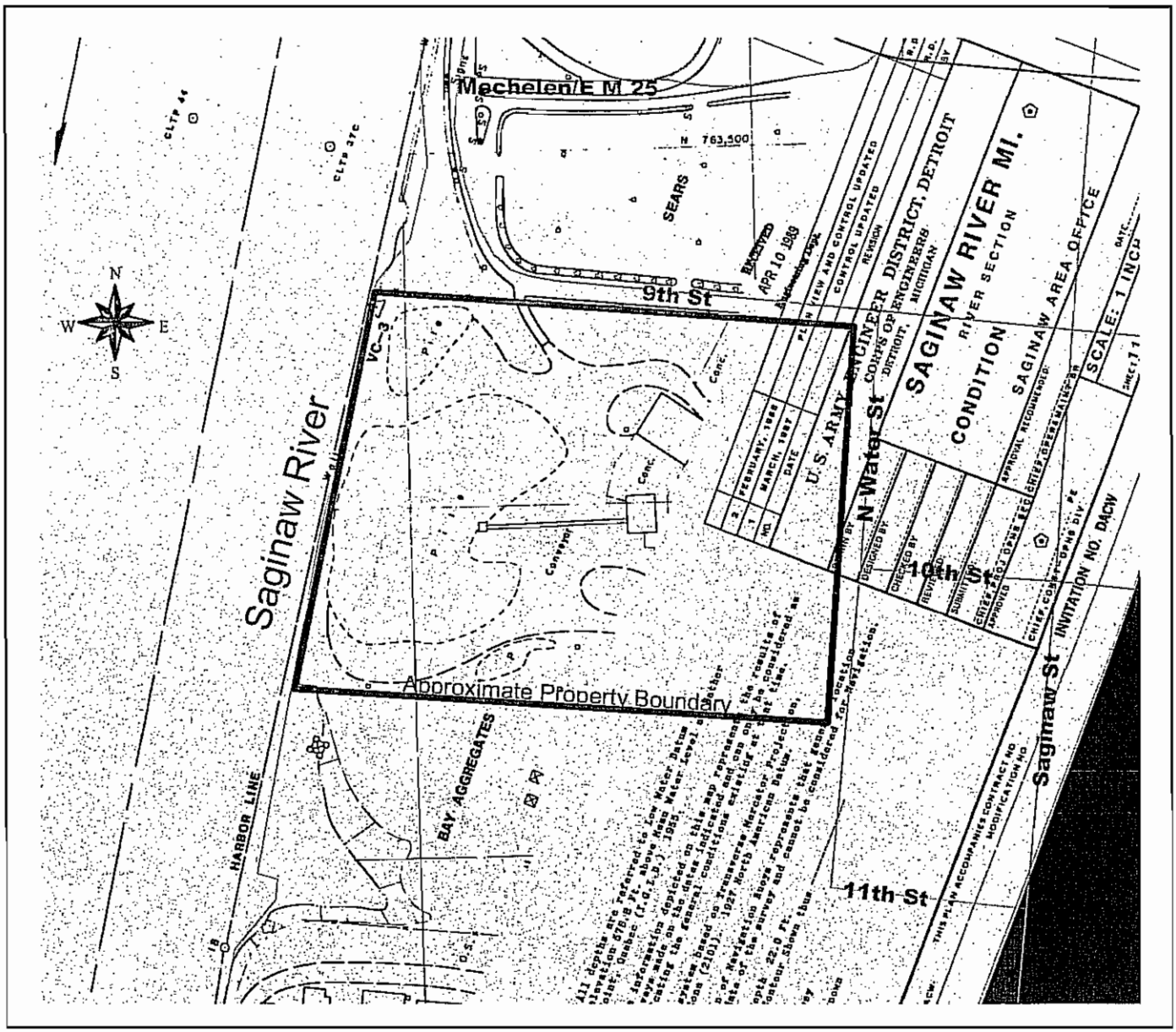


Source: Michigan State University Remote Sensing & GIS

400 0 400 800 Feet

Compiled 10/16/07 by JES
Done in ArcView 3.2a

1988 ARMY CORPS OF ENGINEERS MAP

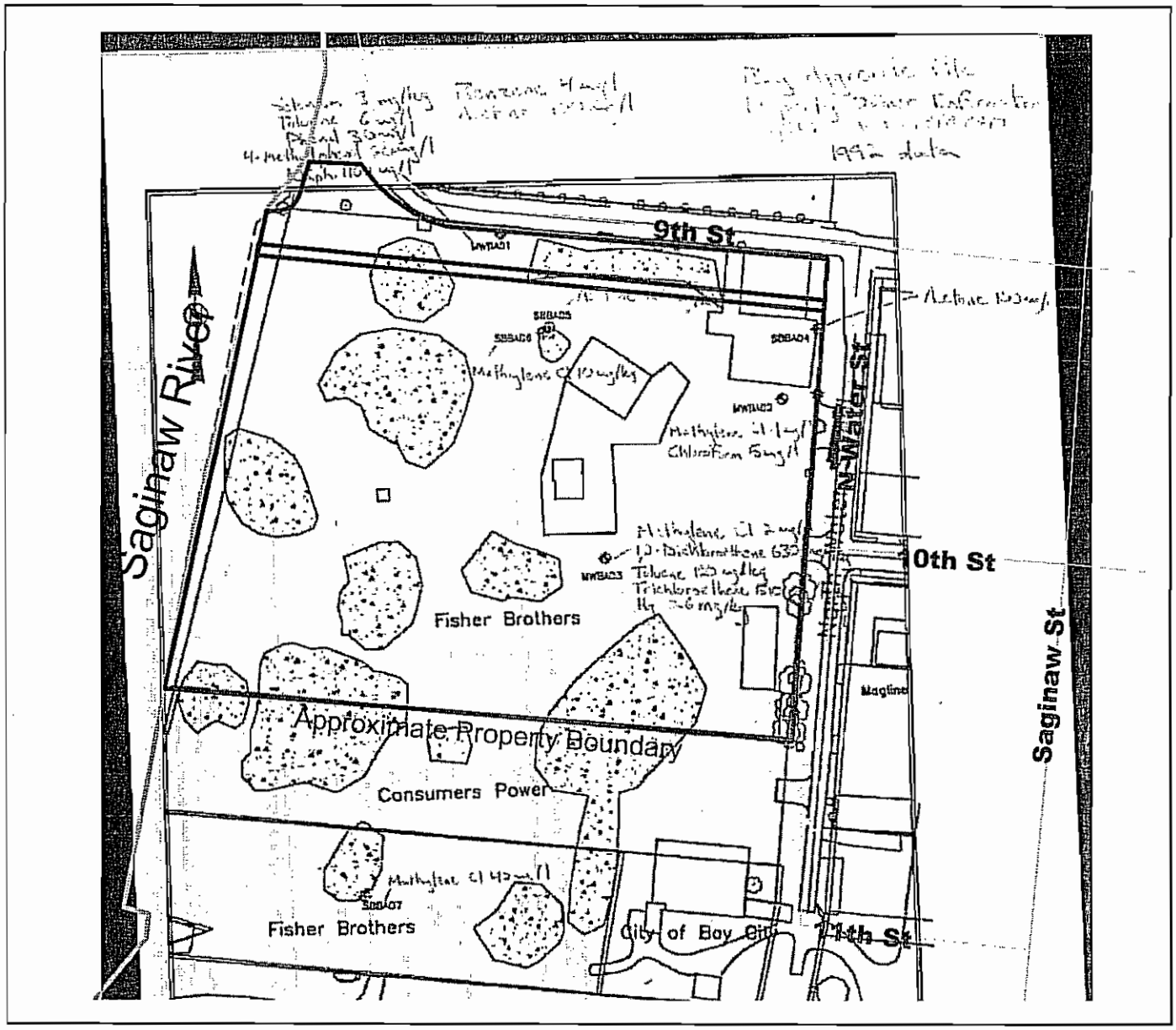


Source: U.S. Army Corps of Engineers, 1988

400 0 400 800 Feet

Compiled 10/17/07 by JES
Done in ArcView 3.2a

1992 SOIL AND GROUNDWATER RESULTS



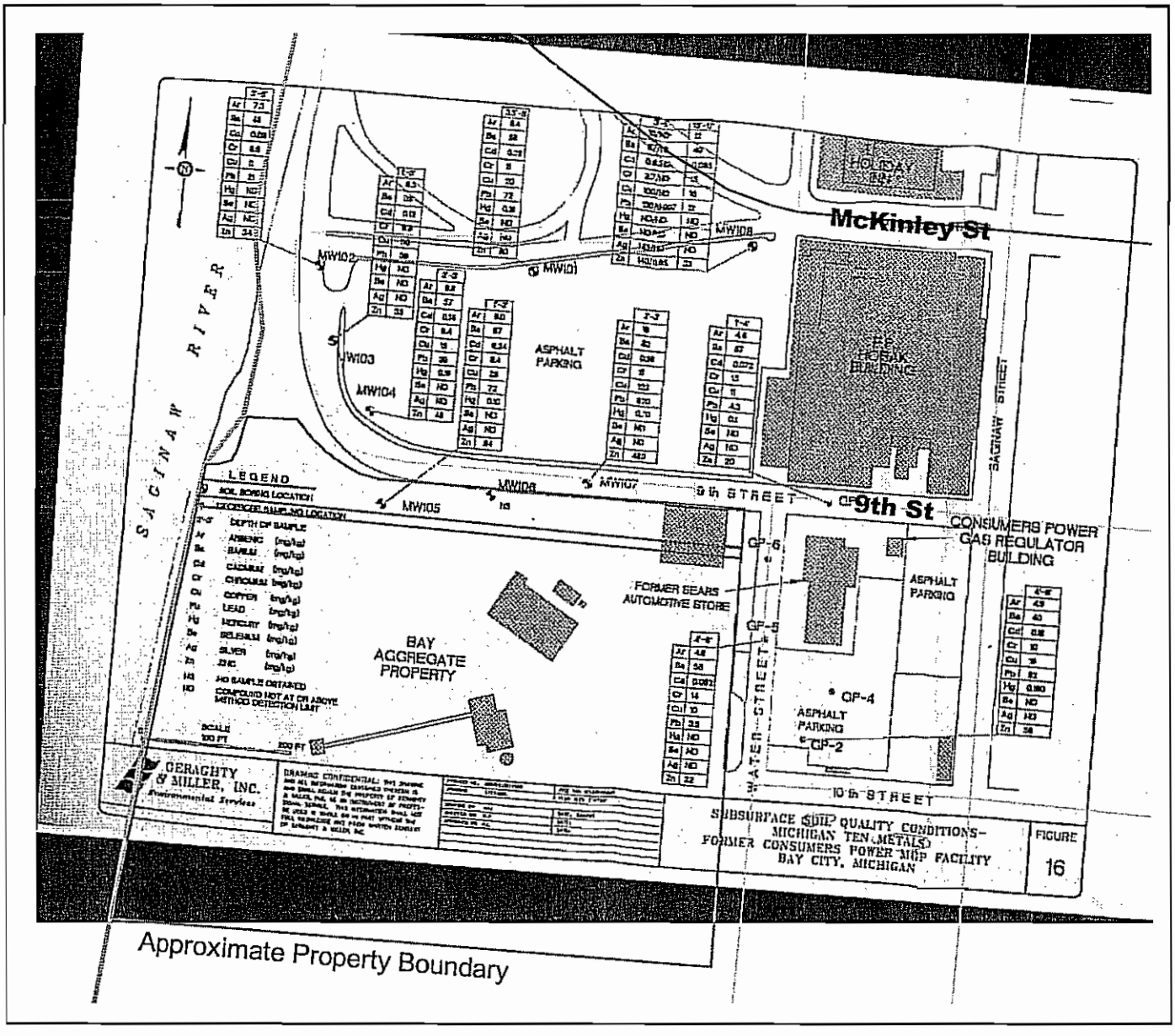
Source: Odell Associates

400 0 400 Feet

N
W E
S

Compiled 08/04/08 by JES
Done in ArcView 3.2a

1995 SOIL SAMPLING RESULTS ADJACENT TO THE PROPERTY (NORTH), MICHIGAN TEN METALS



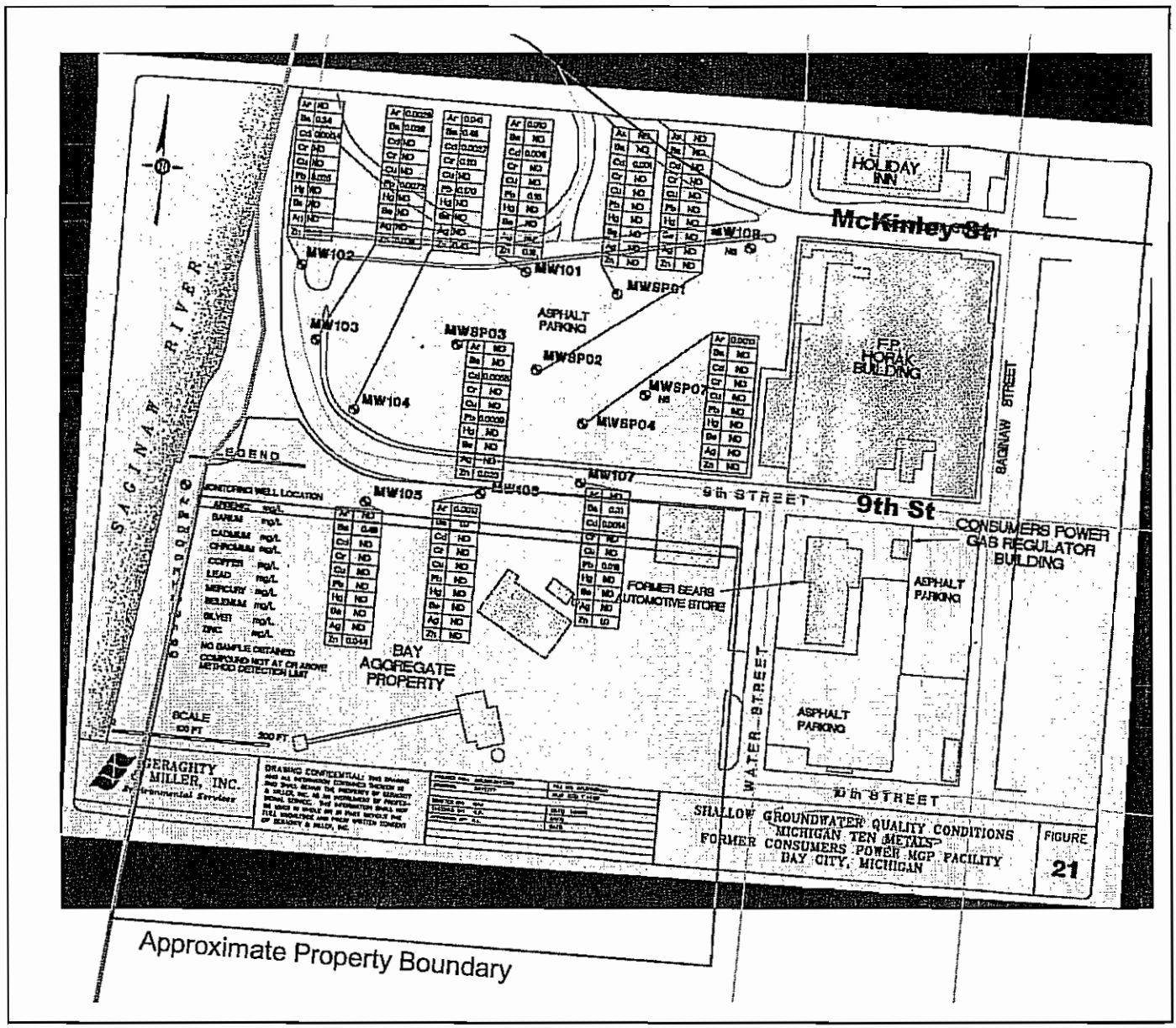
Source: Geraghty & Miller, Inc., March 1995

400 0 400 800 Feet

N W E S

Compiled 08/05/08 by JES
Done in ArcView 3.2a

1995 GROUNDWATER SAMPLING RESULTS ADJACENT TO THE PROPERTY (NORTH), MICHIGAN TEN METALS



Source: Geraghty & Miller, Inc., March 1995

400 0 400 800 Feet

N W E S

Compiled 08/05/08 by JES
Done in ArcView 3.2a

1998 AERIAL

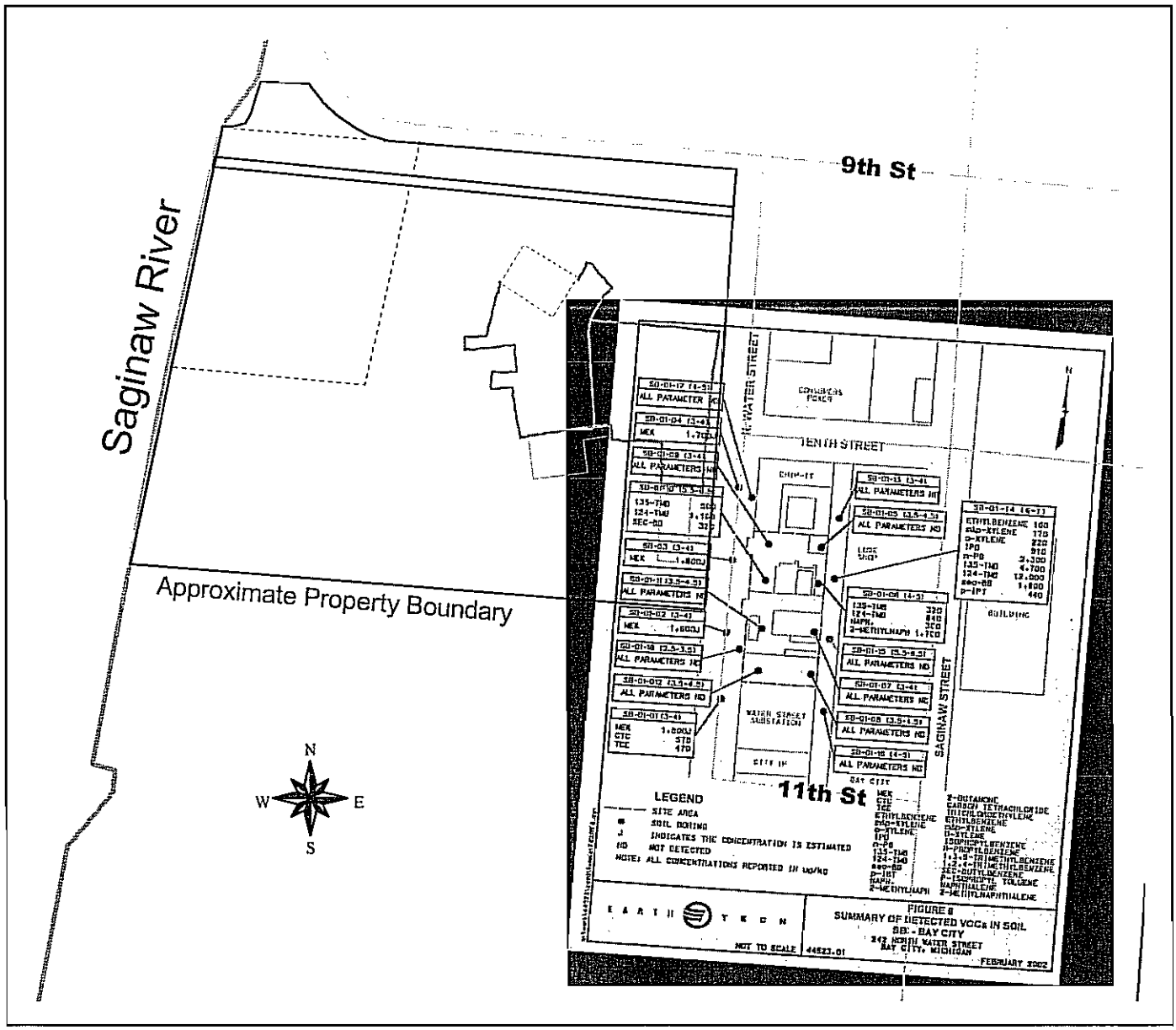
Source: Center for Geographic Information, Michigan Department of Information Technology

400 0 400 800 Feet

N
W E
S

Compiled 10/16/07 by JES
Done in ArcView 3.2a

2001 VOC SOIL SAMPLING RESULTS
ADJACENT TO THE PROPERTY (EAST)

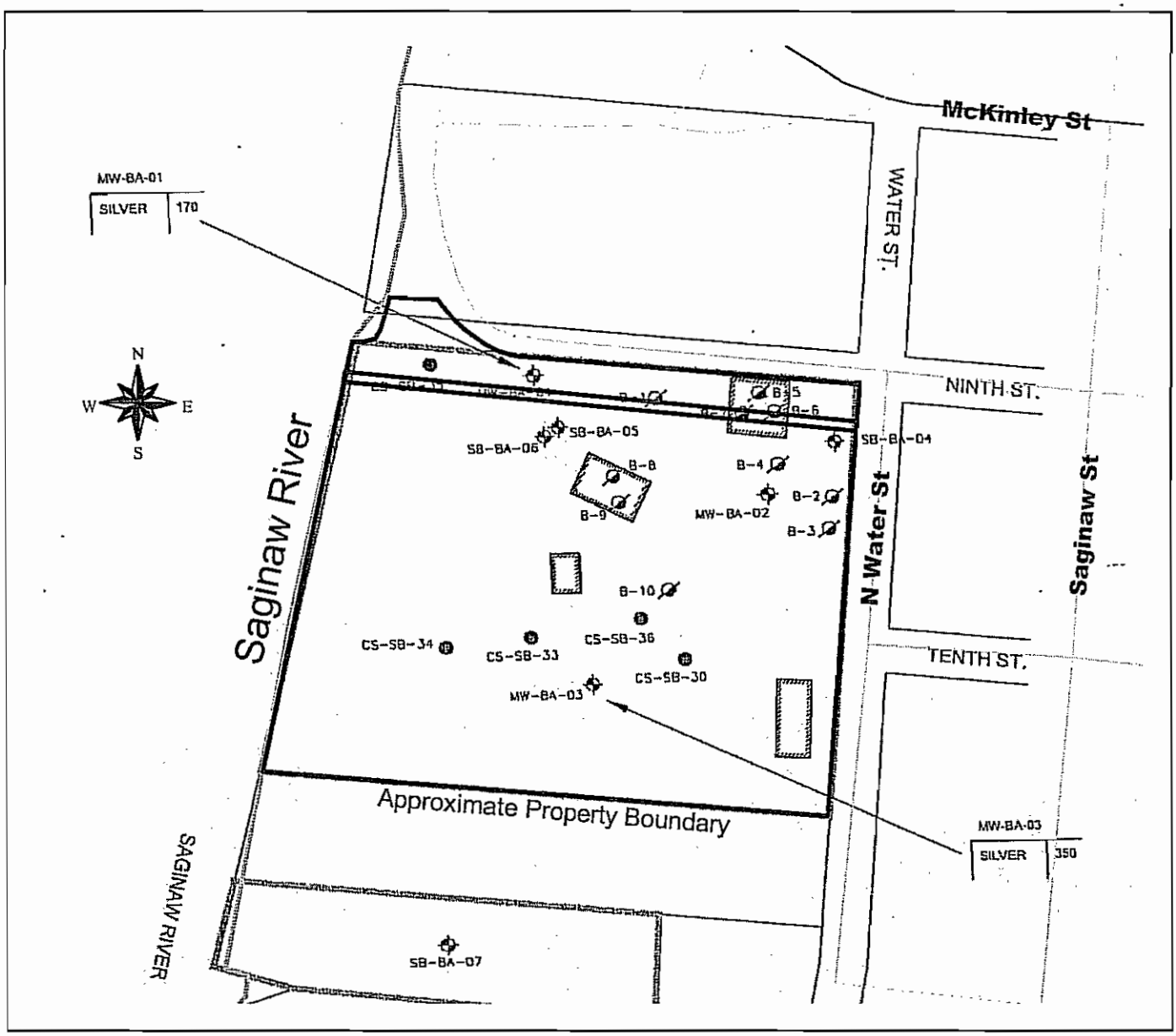


Source: EarthTech, February 2002

400 0 400 800 Feet

Compiled 08/05/08 by JES
Done in ArcView 3.2a

2002 BEA: GROUNDWATER RESULTS EXCEEDING MDEQ CLEANUP CRITERIA (1992, 1993, AND 2002 DATA)

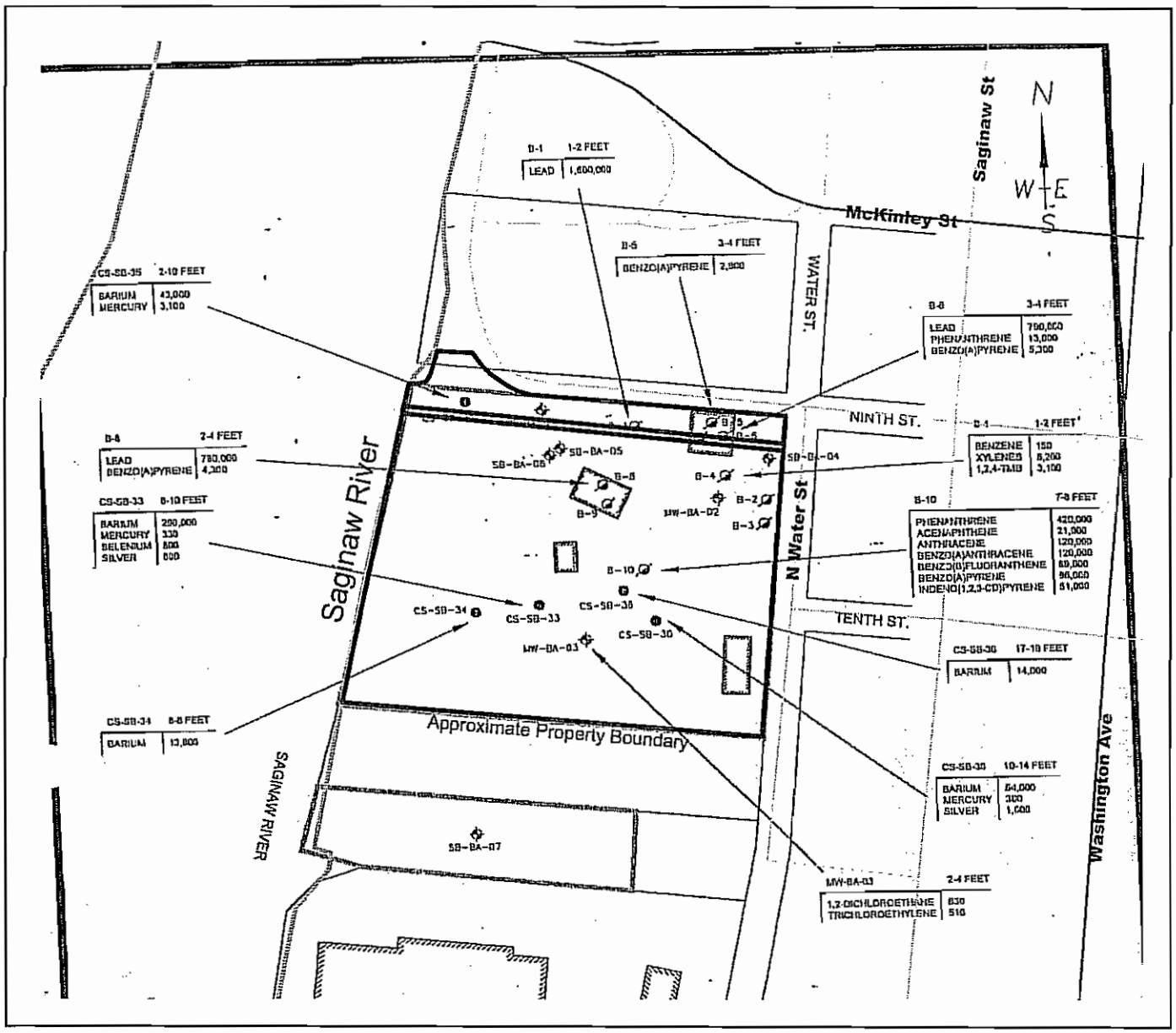


Source: AKTPEERLESS Environmental Services

400 0 400 800 Feet

Compiled 08/05/08 by JES
Done in ArcView 3.2a

2002 BEA: SOIL RESULTS
EXCEEDING MDEQ CLEANUP CRITERIA
(1992, 1993, AND 2002 DATA)

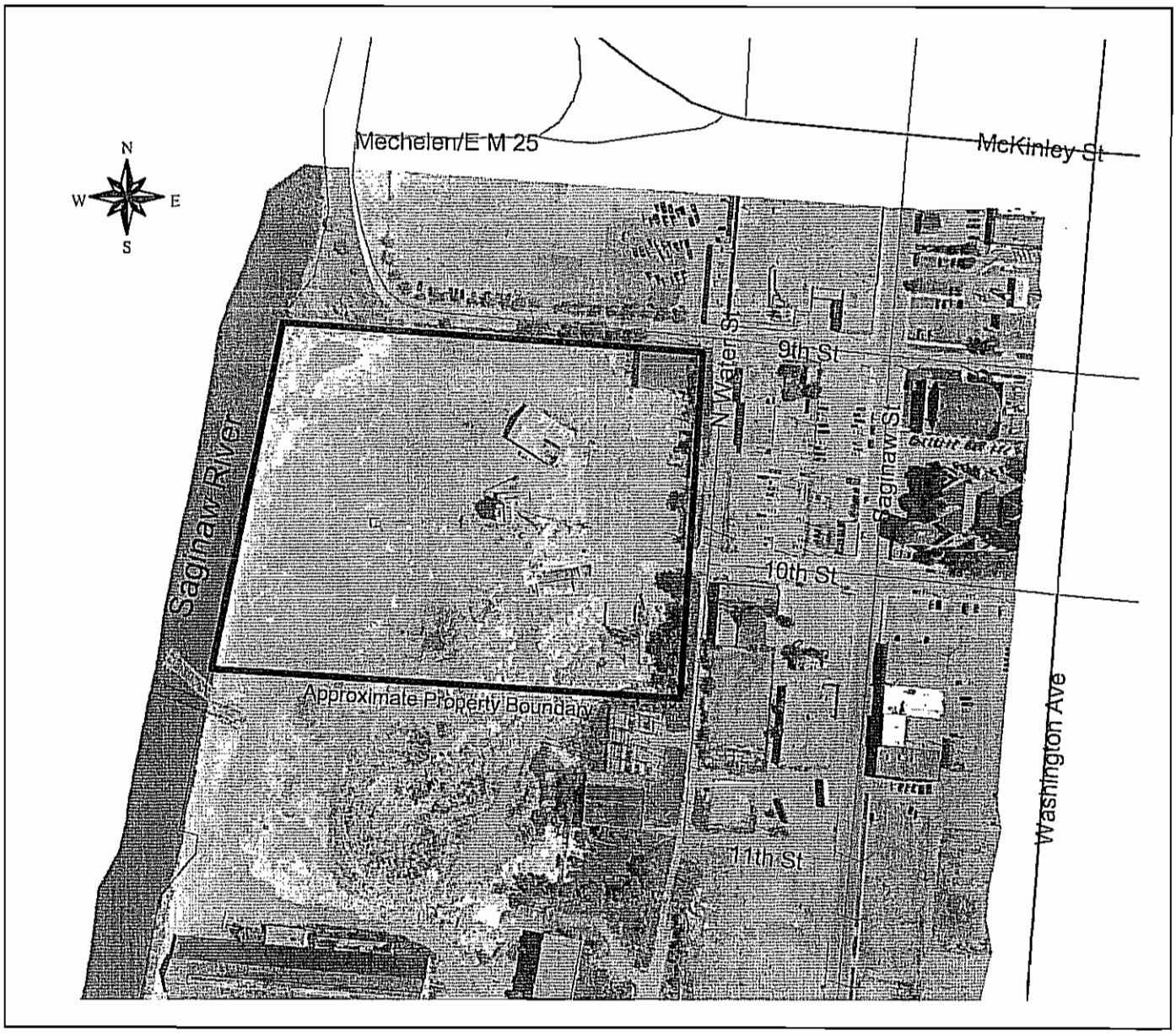


Source: AKTPEERLESS Environmental Services

400 0 400 800 Feet

Compiled 08/05/08 by JES
Done in ArcView 3.2a

2004 AERIAL

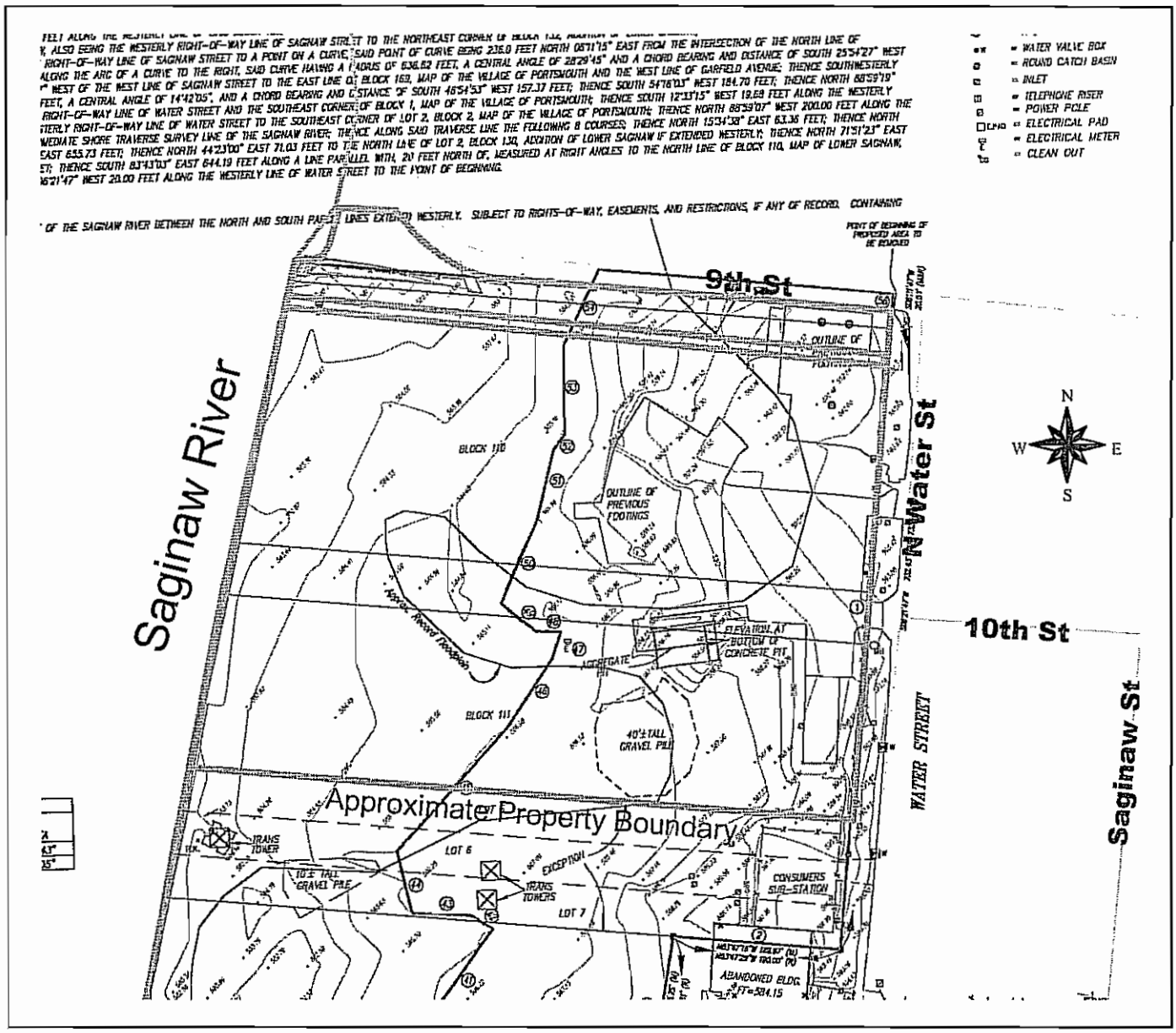


Source: Rowe Incorporated (from City of Bay City)

400 0 400 800 Feet

Compiled 10/16/07 by JES
Done in ArcView 3.2a

2005 FEATURES



Source: Rowe, Incorporated (Plan No. 05M0120, "Uptown Site at River's Edge Letter of Map Ammendment," 12/29/05)

400 0 400 Feet

Compiled 08/04/08 by JES
Done in ArcView 3.2a

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-6 cores, upper ends are to the left, lower ends to the right.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-6 core, showing scrap wood.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-6 cores, upper ends are to the left, lower ends to the right.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-6 cores, upper ends are to the left, lower ends to the right.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-6 cores, upper ends are to the left, lower ends to the right.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-12, hole # 1.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-12, hole # 1.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-12 cores, hole # 2: tops left, bottoms right. 1-4 ft. top, 4-8 ft. middle, and 8-12 ft. bottom.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-12 cores, hole # 2: tops left, bottoms right. 1-4 ft. top, 4-8 ft. middle, and 8-12 ft. bottom.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-12 cores, hole # 2: tops left, bottoms right. 1-4 ft. top, 4-8 ft. middle, and 8-12 ft. bottom.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
Down

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: SB-12 cores, hole # 2: tops left, bottoms right. 1-4 ft. top, 4-8 ft. middle, and 8-12 ft. bottom.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
Down

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: SB-12 cores, hole # 2: tops left, bottoms right. 1-4 ft. top, 4-8 ft. middle, and 8-12 ft. bottom.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16 8-12 ft. core, sampled near bottom right.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16 8-12 ft. core, sampled near bottom right.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/6/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16: tops left, bottoms right, shallow core top, deep core bottom.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16: tops left, bottoms right, shallow core top, deep core bottom.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16: tops left, bottoms right, shallow core top, deep core bottom.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-16: tops left, bottoms right, shallow core top, deep core bottom.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-08.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-08.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-08.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/06/2008

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: SB-08.

DATE:

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: SB-08.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-2 and TMW-8 samples and purge water.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-2 and TMW-8.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

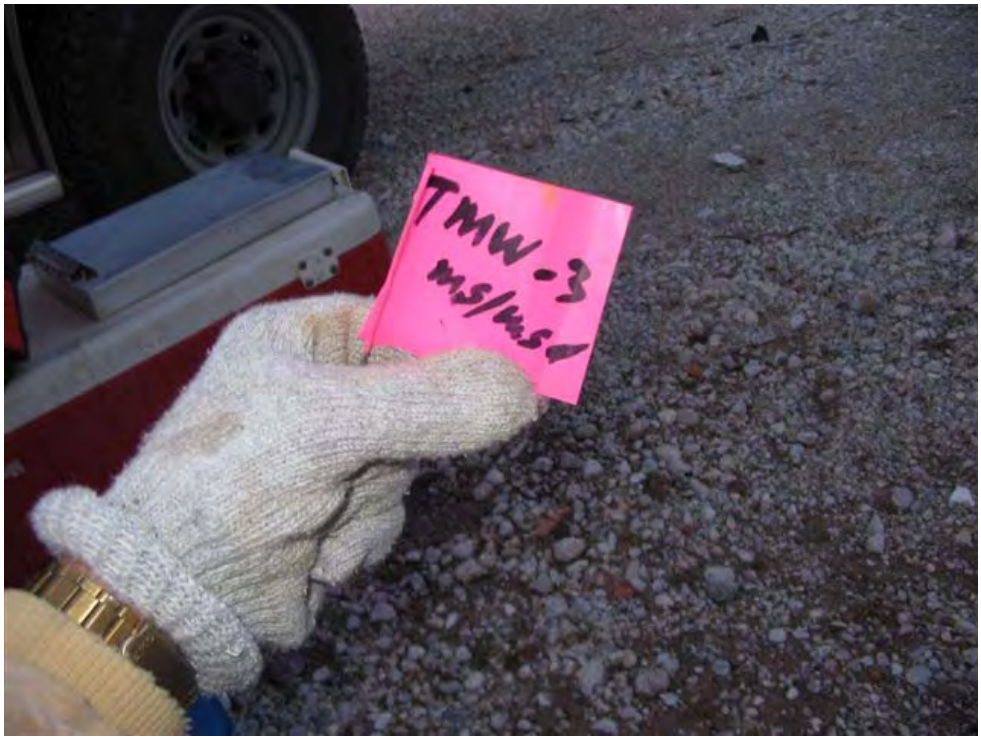
PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-3 purge water.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg



DESCRIPTION: TMW-3 flag.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-3 purge water, first on left and second on right.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH:

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-3 sampling.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-5.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-5 purge water.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-6.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-6 purge water.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-6 purge water.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-6 purge water.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: North-northwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-7 and SB-06.

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: SB-06, with wood from core.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/06/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: TMW-7 purge water.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: East

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking east toward City Hall from entrance gate. Hydrant on right was used for benchmark in well survey.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: Southeast

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking southeast from property across North Water Street.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: South

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking south towards electric station.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: South

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking south.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: South

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking south.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: South

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking south toward Saginaw River.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: West

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking west.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: West

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking west towards river.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: West-northwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking west-northwest towards the boat docking area.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: Northwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking towards the northwest.

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: North

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking north towards the Doubletree Hotel, a former BFRA, now redeveloped.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 10/02/2007

DIRECTION OF PHOTOGRAPH: Northeast

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Looking northeast towards F.P. Horak Building.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: West-southwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right, showing a ship passing the property.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: West

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: West

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Northwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: North

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right. The Doubletree Hotel is at the right.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
North-northeast

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Panorama left to right.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
Northeast

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Panorama left to right.

FIELD PHOTOGRAPHY LOG SHEET

ITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
East

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Panorama left to right. The City Hall building is on the left.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
Southeast

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Panorama left to right.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/07/2008

DIRECTION OF PHOTOGRAPH: South

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Panorama left to right.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Southwest

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Bay City Boat Lines entrance gate.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
South-southwest

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Near riverbank at property.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH:
North

PHOTOGRAPH BY:
John Spielberg

DESCRIPTION: Near riverbank at property.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center

U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: North

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Near riverbank at property.

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Near riverbank at property.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Maritime Heritage Center
U.S. EPA ID #: MID000000146

DATE: 11/07/2007

DIRECTION OF PHOTOGRAPH: Down

PHOTOGRAPH BY: John Spielberg

DESCRIPTION: Near riverbank at property.

DATE: 11/07/2007 DIRECTION OF PHOTOGRAPH: West PHOTOGRAPH BY: John Spielberg

DESCRIPTION: View of the Property from the top of City Hall (3 photographs stitched together).

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Division: RRD
Report to: JOHN SPIELBERG
MDEQ-RRD-SUPERFUND
CONSTITUTION HALL
525 W. ALLEGAN, LANSING, MI 48909

Total: $23,440.50

Lab Work Order # : 71100050
Work Site ID : MIB00000146
Site Name : MARITIME HERITAGE CENTEI
Received: 11/08/2007
Reported: 12/12/2007
Collected By: JOHN SPIELBERG

Samples Received :

No:	Sample ID	Sample Description	Matrix:	Collection Date
01	AB07399	SS-01	SEDIMENT	11/05/2007
02	AB07400	SS-02	SEDIMENT	11/05/2007
03	AB07401	SS-03	SEDIMENT	11/05/2007
04	AB07402	SS-03 MS	SEDIMENT	11/05/2007
05	AB07403	SS-03 MSD	SEDIMENT	11/05/2007
06	AB07404	SS-04	SEDIMENT	11/05/2007
07	AB07405	SS-05	SEDIMENT	11/05/2007
08	AB07406	SS-06	SEDIMENT	11/05/2007
09	AB07407	SS-07	SEDIMENT	11/05/2007
10	AB07408	SS-08	SEDIMENT	11/05/2007
11	AB07409	SS-09	SEDIMENT	11/05/2007
12	AB07410	SS-10	SEDIMENT	11/05/2007
13	AB07411	SS-11	SEDIMENT	11/05/2007
14	AB07412	SB-01	SEDIMENT	11/06/2007
15	AB07413	SB-02	SEDIMENT	11/05/2007
16	AB07414	SB-03	SEDIMENT	11/05/2007
17	AB07415	SB-03 MS	SEDIMENT	11/05/2007
18	AB07416	SB-03 MSD	SEDIMENT	11/05/2007
19	AB07417	SB-04	SEDIMENT	11/05/2007
20	AB07418	SB-05	SEDIMENT	11/07/2007
21	AB07419	SB-06	SEDIMENT	11/06/2007
22	AB07420	SB-07	SEDIMENT	11/07/2007
23	AB07421	SB-08	SEDIMENT	11/06/2007
24	AB07422	SB-09	SEDIMENT	11/05/2007
25	AB07423	SB-10	SEDIMENT	11/07/2007
26	AB07424	SB-11	SEDIMENT	11/06/2007
27	AB07425	SB-12	SEDIMENT	11/07/2007
28	AB07426	SB-13	SEDIMENT	11/06/2007
29	AB07427	SB-14	SEDIMENT	11/07/2007
30	AB07428	MB1	SEDIMENT	11/02/2007
31	AB07429	MB2	SEDIMENT	11/05/2007
32	AB08297	SB-08 MS	SEDIMENT	11/06/2007
33	AB08298	SB-08 MSD	SEDIMENT	11/06/2007

AB07415 Volatiles not spiked for sample SB-03. Sample SB-08 was spiked for volatiles

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

I certify that the analysis performed by the MDEQ Environmental Laboratory are accurate and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Bob Avery, Laboratory Director

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07399 SS-01

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	92.0			
SURROGATE	#Tetrachloro-m-xylene#	89.3			
72-54-8	4,4'-DDD	Not Detected	23	7	1.0
72-55-9	4,4'-DDE	17	23	T	1.0
50-29-3	4,4'-DDT	15	23	T	1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	23		1.0
309-00-2	Aldrin	Not Detected	23		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	160	120		1.0
11096-82-5	Aroclor 1260	Not Detected	120		1.0
37324-23-5	Aroclor 1262	Not Detected	120		1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	23		1.0
319-86-8	d-BHC	Not Detected	23		1.0
60-57-1	Dieldrin	Not Detected	23		1.0
959-98-8	Endosulfan I	Not Detected	23		1.0
33213-65-9	Endosulfan II	Not Detected	23		1.0
1031-07-8	Endosulfan sulfate	Not Detected	23		1.0
72-20-8	Endrin	Not Detected	23		1.0
7421-93-4	Endrin aldehyde	Not Detected	23		1.0
53494-70-5	Endrin ketone	Not Detected	23		1.0
58-89-9	g-BHC (Lindane)	Not Detected	23		1.0
5103-74-2	g-Chlordane	Not Detected	23		1.0
76-44-8	Heptachlor	Not Detected	23		1.0
1024-57-3	Heptachlor epoxide	Not Detected	23		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	58		1.0
2385-85-5	Mirex	Not Detected	58		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	200		1.0

Due to matrix interference, specific Aroclor identification is difficult. The result for Aroclor 1254 should be considered an estimate.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07399 SS-01

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	91.8			
SURROGATE	#2,4,6-Tribromophenol#	89.4			
SURROGATE	#2-Fluorophenol#	75.2			
SURROGATE	#Nitrobenzene - D5#	80.6			
SURROGATE	#Phenol - D6#	87.6			
SURROGATE	#p-Terphenyl-d14#	110			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	230		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	380		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	380		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	380		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	380		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2000	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	230		1.0
95-57-8	2-Chlorophenol	Not Detected	380		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2000	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	290		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	380		1.0
88-74-4	2-Nitroaniline	Not Detected	580		1.0
88-75-5	2-Nitrophenol	Not Detected	380		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	770		1.0
99-09-2	3-Nitroaniline	Not Detected	580		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	230		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	230		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	580		1.0
100-02-7	4-Nitrophenol	Not Detected	2000	Z	1.0
83-32-9	Acenaphthene	Not Detected	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	84	120	J	1.0
103-33-3	Azobenzene	Not Detected	230		1.0
56-55-3	Benzo[a]anthracene	280	120		1.0
50-32-8	Benzo[a]pyrene	340	230		1.0
205-99-2	Benzo[b]fluoranthene	510	230		1.0
191-24-2	Benzo[g,h,i]perylene	250	230		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	230		1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	230		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

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Sample Number: AB07399 SS-01

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	Not Detected	290		1.0
218-01-9	Chrysene	390	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	230	5	1.0
132-64-9	Dibenzofuran	Not Detected	290		1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	610	120		1.0
86-73-7	Fluorene	Not Detected	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	230		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	210	230	T	1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	Not Detected	120		1.0
98-95-3	Nitrobenzene	Not Detected	230		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	230		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	230		1.0
87-86-5	Pentachlorophenol	Not Detected	2000	Z=800	1.0
85-01-8	Phenanthrene	410	120		1.0
108-95-2	Phenol	Not Detected	380		1.0
129-00-0	Pyrene	610	120		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.94			
SURROGATE	#Bromofluorobenzene#	166			
SURROGATE	#Dibromofluoromethane#	194		9	
SURROGATE	#Toluene-d8#	170			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	66		50
71-55-6	1,1,1-Trichloroethane	Not Detected	66		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	66		50

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Sample Number: AB07399 SS-01

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	66		50
75-34-3	1,1-Dichloroethane	Not Detected	66		50
75-35-4	1,1-Dichloroethylene	Not Detected	66		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	330		50
96-18-4	1,2,3-Trichloropropane	Not Detected	66		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	66		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	330		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	66		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	330		50
106-93-4	1,2-Dibromoethane	Not Detected	66	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	66		50
107-06-2	1,2-Dichloroethane	Not Detected	66		50
78-87-5	1,2-Dichloropropane	Not Detected	66		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	66		50
541-73-1	1,3-Dichlorobenzene	Not Detected	66		50
106-46-7	1,4-Dichlorobenzene	Not Detected	66		50
78-93-3	2-Butanone (MEK)	Not Detected	330	7	50
591-78-6	2-Hexanone	Not Detected	330	7	50
91-57-6	2-Methylnaphthalene	Not Detected	330	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1300		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	330		50
107-13-1	Acrylonitrile	Not Detected	330	Z	50
71-43-2	Benzene	Not Detected	66		50
108-86-1	Bromobenzene	Not Detected	66		50
74-97-5	Bromochloromethane	Not Detected	66		50
75-27-4	Bromodichloromethane	Not Detected	66		50
75-25-2	Bromoform	Not Detected	66		50
74-83-9	Bromomethane	Not Detected	270		50
75-15-0	Carbon disulfide	Not Detected	66		50
56-23-5	Carbon tetrachloride	Not Detected	66		50
108-90-7	Chlorobenzene	Not Detected	66		50
75-00-3	Chloroethane	Not Detected	330		50
67-66-3	Chloroform	Not Detected	66		50
74-87-3	Chloromethane	Not Detected	330		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	66		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	66		50
110-82-7	Cyclohexane	Not Detected	330		50
124-48-1	Dibromochloromethane	Not Detected	66		50
74-95-3	Dibromomethane	Not Detected	66		50
75-71-8	Dichlorodifluoromethane	Not Detected	330		50
60-29-7	Diethyl ether	Not Detected	270		50

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Sample Number: AB07399 SS-01

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	330		50
100-41-4	Ethylbenzene	Not Detected	66		50
637-92-3	Ethyltertiarybutylether	Not Detected	330		50
67-72-1	Hexachloroethane	Not Detected	330		50
98-82-8	Isopropylbenzene	Not Detected	66		50
108383,106423	m & p - Xylene	Not Detected	130		50
74-88-4	Methyl iodide	Not Detected	66		50
75-09-2	Methylene chloride	Not Detected	130		50
1634-04-4	Methyltertiarybutylether	Not Detected	66		50
91-20-3	Naphthalene	Not Detected	330	X	50
104-51-8	n-Butylbenzene	Not Detected	66		50
103-65-1	n-Propylbenzene	Not Detected	66		50
95-47-6	o-Xylene	Not Detected	66		50
99-87-6	p-Isopropyl toluene	Not Detected	66		50
135-98-8	sec-Butylbenzene	Not Detected	66		50
100-42-5	Styrene	Not Detected	66		50
98-06-6	tert-Butylbenzene	Not Detected	66		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3300		50
994-05-8	tertiaryAmylmethylether	Not Detected	330		50
127-18-4	Tetrachloroethylene	Not Detected	66		50
109-99-9	Tetrahydrofuran	Not Detected	330		50
108-88-3	Toluene	Not Detected	66		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	66		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	66		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	330	Z	50
79-01-6	Trichloroethylene	Not Detected	66		50
75-69-4	Trichlorofluoromethane	Not Detected	66		50
75-01-4	Vinyl chloride	Not Detected	66	Z	50

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Sample **AB07399** **SS-01**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.31	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.09	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.45	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	4.8	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	260	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.46	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.49	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	14	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	3.2	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	19	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	9600	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	120	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	180	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.47	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.14	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	88	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	86.1	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC-Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07400 SS-02

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	81.8			
SURROGATE	#Tetrachloro-m-xylene#	81.3			
72-54-8	4,4'-DDD	Not Detected	21		1.0
72-55-9	4,4'-DDE	Not Detected	21		1.0
50-29-3	4,4'-DDT	Not Detected	21		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	21		1.0
309-00-2	Aldrin	Not Detected	21		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	21		1.0
319-86-8	d-BHC	Not Detected	21		1.0
60-57-1	Dieldrin	Not Detected	21		1.0
959-98-8	Endosulfan I	Not Detected	21		1.0
33213-65-9	Endosulfan II	Not Detected	21		1.0
1031-07-8	Endosulfan sulfate	Not Detected	21		1.0
72-20-8	Endrin	Not Detected	21		1.0
7421-93-4	Endrin aldehyde	Not Detected	21		1.0
53494-70-5	Endrin ketone	Not Detected	21		1.0
58-89-9	g-BHC (Lindane)	Not Detected	21		1.0
5103-74-2	g-Chlordane	Not Detected	21		1.0
76-44-8	Heptachlor	Not Detected	21		1.0
1024-57-3	Heptachlor epoxide	Not Detected	21		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	53		1.0
2385-85-5	Mirex	Not Detected	53		1.0
59080-40-9	PBB (BP-6)	Not Detected	270		1.0
8001-35-2	Toxaphene	Not Detected	180		1.0

CAS# : Chemical Abstract Service Registry Number
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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07400 SS-02

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	87.5			
SURROGATE	#2,4,6-Tribromophenol#	77.5			
SURROGATE	#2-Fluorophenol#	71.2			
SURROGATE	#Nitrobenzene - D5#	75.8			
SURROGATE	#Phenol - D6#	80.5			
SURROGATE	#p-Terphenyl-d14#	83.4			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	210		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	350		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	350		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	350		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	350		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1800	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	270		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	270		1.0
91-58-7	2-Chloronaphthalene	Not Detected	210		1.0
95-57-8	2-Chlorophenol	Not Detected	350		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1800	Z	1.0
91-57-6	2-Methylnaphthalene	370	270		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	350		1.0
88-74-4	2-Nitroaniline	Not Detected	530		1.0
88-75-5	2-Nitrophenol	Not Detected	350		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	700		1.0
99-09-2	3-Nitroaniline	Not Detected	530		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	210		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	210		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	530		1.0
100-02-7	4-Nitrophenol	Not Detected	1800	Z	1.0
83-32-9	Acenaphthene	Not Detected	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	Not Detected	110		1.0
103-33-3	Azobenzene	Not Detected	210		1.0
56-55-3	Benzo[a]anthracene	84	110	T	1.0
50-32-8	Benzo[a]pyrene	Not Detected	210		1.0
205-99-2	Benzo[b]fluoranthene	110	210	T	1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	210		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	210		1.0
100-51-6	Benzyl Alcohol	Not Detected	2700		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	210		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07400 SS-02

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	270		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	270		1.0
86-74-8	Carbazole	Not Detected	270		1.0
218-01-9	Chrysene	130	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	210	5	1.0
132-64-9	Dibenzofuran	Not Detected	270		1.0
84-66-2	Diethylphthalate	Not Detected	270		1.0
131-11-3	Dimethyl phthalate	Not Detected	270		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	270		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	270		1.0
206-44-0	Fluoranthene	150	110		1.0
86-73-7	Fluorene	Not Detected	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	210		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	210		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	240	110		1.0
98-95-3	Nitrobenzene	Not Detected	210		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	270		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	210		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	210		1.0
87-86-5	Pentachlorophenol	Not Detected	1800	Z=800	1.0
85-01-8	Phenanthrene	300	110		1.0
108-95-2	Phenol	Not Detected	350		1.0
129-00-0	Pyrene	140	110		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.69			
SURROGATE	#Bromofluorobenzene#	128			
SURROGATE	#Dibromofluoromethane#	146			
SURROGATE	#Toluene-d8#	133			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	58		50
71-55-6	1,1,1-Trichloroethane	Not Detected	58		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	58		50

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Sample Number: AB07400 SS-02

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	58		50
75-34-3	1,1-Dichloroethane	Not Detected	58		50
75-35-4	1,1-Dichloroethylene	Not Detected	58		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	290		50
96-18-4	1,2,3-Trichloropropane	Not Detected	58		50
526-73-8	1,2,3-Trimethylbenzene	110	58		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	290		50
95-63-6	1,2,4-Trimethylbenzene	230	58		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	290		50
106-93-4	1,2-Dibromoethane	Not Detected	58	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	58		50
107-06-2	1,2-Dichloroethane	Not Detected	58		50
78-87-5	1,2-Dichloropropane	Not Detected	58		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	58		50
541-73-1	1,3-Dichlorobenzene	Not Detected	58		50
106-46-7	1,4-Dichlorobenzene	Not Detected	58		50
78-93-3	2-Butanone (MEK)	Not Detected	290	7	50
591-78-6	2-Hexanone	Not Detected	290	7	50
91-57-6	2-Methylnaphthalene	860	290	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1200		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	290		50
107-13-1	Acrylonitrile	Not Detected	290	Z	50
71-43-2	Benzene	Not Detected	58		50
108-86-1	Bromobenzene	Not Detected	58		50
74-97-5	Bromochloromethane	Not Detected	58		50
75-27-4	Bromodichloromethane	Not Detected	58		50
75-25-2	Bromoform	Not Detected	58		50
74-83-9	Bromomethane	Not Detected	230		50
75-15-0	Carbon disulfide	Not Detected	58		50
56-23-5	Carbon tetrachloride	Not Detected	58		50
108-90-7	Chlorobenzene	Not Detected	58		50
75-00-3	Chloroethane	Not Detected	290		50
67-66-3	Chloroform	Not Detected	58		50
74-87-3	Chloromethane	Not Detected	290		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	58		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	58		50
110-82-7	Cyclohexane	Not Detected	290		50
124-48-1	Dibromochloromethane	Not Detected	58		50
74-95-3	Dibromomethane	Not Detected	58		50
75-71-8	Dichlorodifluoromethane	Not Detected	290		50
60-29-7	Diethyl ether	Not Detected	230		50

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Sample Number: AB07400 SS-02

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	290		50
100-41-4	Ethylbenzene	Not Detected	58		50
637-92-3	Ethyltertiarybutylether	Not Detected	290		50
67-72-1	Hexachloroethane	Not Detected	290		50
98-82-8	Isopropylbenzene	Not Detected	58		50
108383-106423	m & p - Xylene	250	120		50
74-88-4	Methyl iodide	Not Detected	58		50
75-09-2	Methylene chloride	Not Detected	120		50
1634-04-4	Methyltertiarybutylether	Not Detected	58		50
91-20-3	Naphthalene	460	290	X	50
104-51-8	n-Butylbenzene	Not Detected	58		50
103-65-1	n-Propylbenzene	Not Detected	58		50
95-47-6	o-Xylene	150	58		50
99-87-6	p-Isopropyl toluene	Not Detected	58		50
135-98-8	sec-Butylbenzene	Not Detected	58		50
100-42-5	Styrene	Not Detected	58		50
98-06-6	tert-Butylbenzene	Not Detected	58		50
75-65-0	tertiary-Butyl Alcohol	Not Detected	2900		50
994-05-8	tertiaryAmylmethylether	Not Detected	290		50
127-18-4	Tetrachloroethylene	Not Detected	58		50
109-99-9	Tetrahydrofuran	Not Detected	290		50
108-88-3	Toluene	110	58		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	58		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	58		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	290	Z	50
79-01-6	Trichloroethylene	Not Detected	58		50
75-69-4	Trichlorofluoromethane	Not Detected	58		50
75-01-4	Vinyl chloride	Not Detected	58	Z	50

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Sample **AB07400** **SS-02**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	1.2	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	35	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	1.0	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	2.9	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.2	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	3.5	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	3000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	8.8	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	310	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	8.6	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.49	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	2.9	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	18	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	94.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07401 SS-03

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	77.5			
SURROGATE	#Tetrachloro-m-xylene#	76.2			
72-54-8	4,4'-DDD	Not Detected	22	7	1.0
72-55-9	4,4'-DDE	Not Detected	22		1.0
50-29-3	4,4'-DDT	Not Detected	22		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	22		1.0
309-00-2	Aldrin	Not Detected	22		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	22		1.0
319-86-8	d-BHC	Not Detected	22		1.0
60-57-1	Dieldrin	Not Detected	22		1.0
959-98-8	Endosulfan I	Not Detected	22		1.0
33213-65-9	Endosulfan II	Not Detected	22		1.0
1031-07-8	Endosulfan sulfate	Not Detected	22		1.0
72-20-8	Endrin	Not Detected	22		1.0
7421-93-4	Endrin aldehyde	Not Detected	22		1.0
53494-70-5	Endrin ketone	Not Detected	22		1.0
58-89-9	g-BHC (Lindane)	Not Detected	22		1.0
5103-74-2	g-Chlordane	Not Detected	22		1.0
76-44-8	Heptachlor	Not Detected	22		1.0
1024-57-3	Heptachlor epoxide	Not Detected	22		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	56		1.0
2385-85-5	Mirex	Not Detected	56		1.0
59080-40-9	PBB (BP-6)	Not Detected	280		1.0
8001-35-2	Toxaphene	Not Detected	190		1.0

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Sample Number: AB07401 SS-03

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	88.9			
SURROGATE	#2,4,6-Tribromophenol#	88.3			
SURROGATE	#2-Fluorophenol#	74.1			
SURROGATE	#Nitrobenzene - D5#	81.8			
SURROGATE	#Phenol - D6#	88.8			
SURROGATE	#p-Terphenyl-d14#	114			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	220		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	370		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	370		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	370		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	370		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1900	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	280		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	280		1.0
91-58-7	2-Chloronaphthalene	Not Detected	220		1.0
95-57-8	2-Chlorophenol	Not Detected	370		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1900	Z	1.0
91-57-6	2-Methylnaphthalene	470	280		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	370		1.0
88-74-4	2-Nitroaniline	Not Detected	560		1.0
88-75-5	2-Nitrophenol	Not Detected	370		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	740		1.0
99-09-2	3-Nitroaniline	Not Detected	560		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	220		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	220		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	560		1.0
100-02-7	4-Nitrophenol	Not Detected	1900	Z	1.0
83-32-9	Acenaphthene	120	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	350	110		1.0
103-33-3	Azobenzene	Not Detected	220		1.0
56-55-3	Benzo[a]anthracene	890	110		1.0
50-32-8	Benzo[a]pyrene	890	220		1.0
205-99-2	Benzo[b]fluoranthene	1100	220		1.0
191-24-2	Benzo[g,h,i]perylene	560	220		1.0
207-08-9	Benzo[k]fluoranthene	410	220		1.0
100-51-6	Benzyl Alcohol	Not Detected	2800		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	220		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

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Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07401 SS-03

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	280		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	280		1.0
86-74-8	Carbazole	Not Detected	280		1.0
218-01-9	Chrysene	1000	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	220	5	1.0
132-64-9	Dibenzofuran	200	280	T	1.0
84-66-2	Diethylphthalate	Not Detected	280		1.0
131-11-3	Dimethyl phthalate	Not Detected	280		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	280		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	280		1.0
206-44-0	Fluoranthene	1900	110		1.0
86-73-7	Fluorene	140	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	220		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	470	220		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	360	110		1.0
98-95-3	Nitrobenzene	Not Detected	220		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	280		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	220		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	220		1.0
87-86-5	Pentachlorophenol	Not Detected	1900	Z=800	1.0
85-01-8	Phenanthrene	1600	110		1.0
108-95-2	Phenol	Not Detected	370		1.0
129-00-0	Pyrene	1900	110		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.72			
SURROGATE	#Bromofluorobenzene#	141			
SURROGATE	#Dibromofluoromethane#	162			
SURROGATE	#Toluene-d8#	145			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	63		50
71-55-6	1,1,1-Trichloroethane	Not Detected	63		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	63		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07401 SS-03

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	63		50
75-34-3	1,1-Dichloroethane	Not Detected	63		50
75-35-4	1,1-Dichloroethylene	Not Detected	63		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	320		50
96-18-4	1,2,3-Trichloropropane	Not Detected	63		50
526-73-8	1,2,3-Trimethylbenzene	100	63		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	320		50
95-63-6	1,2,4-Trimethylbenzene	200	63		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	320		50
106-93-4	1,2-Dibromoethane	Not Detected	63	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	63		50
107-06-2	1,2-Dichloroethane	Not Detected	63		50
78-87-5	1,2-Dichloropropane	Not Detected	63		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	63		50
541-73-1	1,3-Dichlorobenzene	Not Detected	63		50
106-46-7	1,4-Dichlorobenzene	Not Detected	63		50
78-93-3	2-Butanone (MEK)	Not Detected	320	7	50
591-78-6	2-Hexanone	Not Detected	320	7	50
91-57-6	2-Methylnaphthalene	620	320	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1300		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	320		50
107-13-1	Acrylonitrile	Not Detected	320	Z	50
71-43-2	Benzene	Not Detected	63		50
108-86-1	Bromobenzene	Not Detected	63		50
74-97-5	Bromochloromethane	Not Detected	63		50
75-27-4	Bromodichloromethane	Not Detected	63		50
75-25-2	Bromoform	Not Detected	63		50
74-83-9	Bromomethane	Not Detected	250		50
75-15-0	Carbon disulfide	Not Detected	63		50
56-23-5	Carbon tetrachloride	Not Detected	63		50
108-90-7	Chlorobenzene	Not Detected	63		50
75-00-3	Chloroethane	Not Detected	320		50
67-66-3	Chloroform	Not Detected	63		50
74-87-3	Chloromethane	Not Detected	320		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	63		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	63		50
110-82-7	Cyclohexane	Not Detected	320		50
124-48-1	Dibromochloromethane	Not Detected	63		50
74-95-3	Dibromomethane	Not Detected	63		50
75-71-8	Dichlorodifluoromethane	Not Detected	320		50
60-29-7	Diethyl ether	Not Detected	250		50

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Sample Number: AB07401 SS-03

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	320		50
100-41-4	Ethylbenzene	76	63		50
637-92-3	Ethyltertiarybutylether	Not Detected	320		50
67-72-1	Hexachloroethane	Not Detected	320		50
98-82-8	Isopropylbenzene	Not Detected	63		50
108383,106423	m & p - Xylene	430	130		50
74-88-4	Methyl iodide	Not Detected	63		50
75-09-2	Methylene chloride	Not Detected	130		50
1634-04-4	Methyltertiarybutylether	Not Detected	63		50
91-20-3	Naphthalene	430	320	X	50
104-51-8	n-Butylbenzene	Not Detected	63		50
103-65-1	n-Propylbenzene	Not Detected	63		50
95-47-6	o-Xylene	230	63		50
99-87-6	p-Isopropyl toluene	Not Detected	63		50
135-98-8	sec-Butylbenzene	Not Detected	63		50
100-42-5	Styrene	Not Detected	63		50
98-06-6	tert-Butylbenzene	Not Detected	63		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3200		50
994-05-8	tertiaryAmylmethylether	Not Detected	320		50
127-18-4	Tetrachloroethylene	Not Detected	63		50
109-99-9	Tetrahydrofuran	Not Detected	320		50
108-88-3	Toluene	420	63		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	63		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	63		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	320	Z	50
79-01-6	Trichloroethylene	Not Detected	63		50
75-69-4	Trichlorofluoromethane	Not Detected	63		50
75-01-4	Vinyl chloride	Not Detected	63	Z	50

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Sample **AB07401** **SS-03**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.15	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	2.2	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	5.2	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	74	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.57	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.68	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	10	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	3.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	31	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	12000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	130	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	170	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	1.1	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.68	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.11	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	10	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	210	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	89.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07402 SS-03 MS

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	75.5			
SURROGATE	#Tetrachloro-m-xylene#	74.0			
72-54-8	4,4'-DDD	75	22		1.0
72-55-9	4,4'-DDE	91	22		1.0
50-29-3	4,4'-DDT	93	22		1.0
319-84-6	a-BHC	85	11		1.0
5103-71-9	a-Chlordane	88	22		1.0
309-00-2	Aldrin	89	22		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	85	22		1.0
319-86-8	d-BHC	89	22		1.0
60-57-1	Dieldrin	88	22		1.0
959-98-8	Endosulfan I	84	22		1.0
33213-65-9	Endosulfan II	89	22		1.0
1031-07-8	Endosulfan sulfate	94	22		1.0
72-20-8	Endrin	92	22		1.0
7421-93-4	Endrin aldehyde	73	22		1.0
53494-70-5	Endrin ketone	88	22		1.0
58-89-9	g-BHC (Lindane)	84	22		1.0
5103-74-2	g-Chlordane	75	22		1.0
76-44-8	Heptachlor	89	22		1.0
1024-57-3	Heptachlor epoxide	80	22		1.0
87-82-1	Hexabromobenzene	82	110	T	1.0
72-43-5	Methoxychlor	98	56		1.0
2385-85-5	Mirex	84	56		1.0
59080-40-9	PBB (BP-6)	81	280	T	1.0
8001-35-2	Toxaphene	Not Detected	190		1.0

Sample is a matrix spike.
Pesticides are spiked at 100 ug/Kg wet weight.

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Sample Number: AB07402 SS-03 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	85.0			
SURROGATE	#2,4,6-Tribromophenol#	86.3			
SURROGATE	#2-Fluorophenol#	72.5			
SURROGATE	#Nitrobenzene - D5#	73.0			
SURROGATE	#Phenol - D6#	80.7			
SURROGATE	#p-Terphenyl-d14#	107			
120-82-1	1,2,4-Trichlorobenzene	1700	220		1.0
95-95-4	2,4,5-Trichlorophenol	4300	370		1.0
88-06-2	2,4,6-Trichlorophenol	3900	370		1.0
120-83-2	2,4-Dichlorophenol	3900	370		1.0
105-67-9	2,4-Dimethylphenol	3700	370		1.0
51-28-5	2,4-Dinitrophenol	1600	1900	T5Z	1.0
121-14-2	2,4-Dinitrotoluene	2100	280		1.0
606-20-2	2,6-Dinitrotoluene	2100	280		1.0
91-58-7	2-Chloronaphthalene	2000	220		1.0
95-57-8	2-Chlorophenol	3500	370		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	3500	1900	Z	1.0
91-57-6	2-Methylnaphthalene	2100	280		1.0
95-48-7	2-Methylphenol (o-Cresol)	3800	370		1.0
88-74-4	2-Nitroaniline	2000	560		1.0
88-75-5	2-Nitrophenol	3500	370		1.0
108394,106445	3-& 4-Methylphenol	3700	740		1.0
99-09-2	3-Nitroaniline	1500	560		1.0
101-55-3	4-Bromophenyl phenyl ether	2200	220		1.0
59-50-7	4-Chloro-3-methyl-phenol	4200	220		1.0
7005-72-3	4-Chlorodiphenylether	1900	110		1.0
100-01-6	4-Nitroaniline	1200	560		1.0
100-02-7	4-Nitrophenol	3500	1900	Z	1.0
83-32-9	Acenaphthene	2100	110		1.0
208-96-8	Acenaphthylene	2300	110		1.0
120-12-7	Anthracene	2300	110		1.0
103-33-3	Azobenzene	2200	220		1.0
56-55-3	Benzo[a]anthracene	2700	110		1.0
50-32-8	Benzo[a]pyrene	2900	220		1.0
205-99-2	Benzo[b]fluoranthene	3000	220		1.0
191-24-2	Benzo[g,h,i]perylene	2100	220	5	1.0
207-08-9	Benzo[k]fluoranthene	2600	220		1.0
100-51-6	Benzyl Alcohol	2600	2800	T	1.0
111-91-1	Bis(2-chloroethoxy)methane	1700	220		1.0
111-44-4	Bis(2-chloroethyl)ether	1600	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	1700	110		1.0

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Sample Number: AB07402 SS-03 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	2400	280		1.0
85-68-7	Butyl benzyl phthalate	2300	280		1.0
86-74-8	Carbazole	2000	280		1.0
218-01-9	Chrysene	2900	110		1.0
53-70-3	Dibenz[a,h]anthracene	2100	220		1.0
132-64-9	Dibenzofuran	2100	280		1.0
84-66-2	Diethylphthalate	2000	280		1.0
131-11-3	Dimethyl phthalate	2000	280		1.0
84-74-2	Di-n-butyl phthalate	2100	280		1.0
117-84-0	Di-n-octyl phthalate	2000	280		1.0
206-44-0	Fluoranthene	3200	110		1.0
86-73-7	Fluorene	1900	110		1.0
118-74-1	Hexachlorobenzene	2100	220		1.0
87-68-3	Hexachlorobutadiene	1600	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	490	1100	T5Z	1.0
67-72-1	Hexachloroethane	1300	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	2300	220		1.0
78-59-1	Isophorone	1500	110		1.0
91-20-3	Naphthalene	2000	110		1.0
98-95-3	Nitrobenzene	1700	220		1.0
62-75-9	N-Nitrosodimethylamine	2000	280	6	1.0
621-64-7	N-Nitrosodi-n-propylamine	1600	220		1.0
86-30-6	N-Nitrosodiphenylamine	2400	220		1.0
87-86-5	Pentachlorophenol	2600	1900	Z=800	1.0
85-01-8	Phenanthrene	3000	110		1.0
108-95-2	Phenol	3800	370		1.0
129-00-0	Pyrene	3600	110		1.0

Sample is a matrix spike.
Phenol compounds are spiked at 4000 ug/Kg wet weight.
Base Neutral compounds are spiked at 2000 ug/Kg wet weight.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.72			
SURROGATE	#Bromofluorobenzene#	125			
SURROGATE	#Dibromofluoromethane#	163			
SURROGATE	#Toluene-d8#	142			
630-20-6	1,1,1,2-Tetrachloroethane	3600	63		50

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ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
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Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07402 SS-03 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
71-55-6	1,1,1-Trichloroethane	4000	63		50
79-34-5	1,1,2,2-Tetrachloroethane	3900	63		50
79-00-5	1,1,2-Trichloroethane	3500	63		50
75-34-3	1,1-Dichloroethane	3500	63		50
75-35-4	1,1-Dichloroethylene	3800	63		50
87-61-6	1,2,3-Trichlorobenzene	3700	320		50
96-18-4	1,2,3-Trichloropropane	4100	63		50
526-73-8	1,2,3-Trimethylbenzene	3600	63		50
120-82-1	1,2,4-Trichlorobenzene	3600	320		50
95-63-6	1,2,4-Trimethylbenzene	3700	63		50
96-12-8	1,2-Dibromo-3-chloropropane	4200	320		50
106-93-4	1,2-Dibromoethane	3700	63	Z	50
95-50-1	1,2-Dichlorobenzene	3500	63		50
107-06-2	1,2-Dichloroethane	4200	63	6	50
78-87-5	1,2-Dichloropropane	3300	63		50
108-67-8	1,3,5-Trimethylbenzene	3500	63		50
541-73-1	1,3-Dichlorobenzene	3400	63		50
106-46-7	1,4-Dichlorobenzene	3400	63		50
78-93-3	2-Butanone (MEK)	4500	320	7	50
591-78-6	2-Hexanone	4200	320	6,7	50
91-57-6	2-Methylnaphthalene	4700	320	X	50
67-64-1	2-Propanone (acetone)	5600	1300	6	50
108-10-1	4-Methyl-2-pentanone (MIBK)	4100	320		50
107-13-1	Acrylonitrile	3500	320	Z	50
71-43-2	Benzene	3500	63		50
108-86-1	Bromobenzene	3500	63		50
74-97-5	Bromochloromethane	3600	63		50
75-27-4	Bromodichloromethane	3700	63		50
75-25-2	Bromoform	3500	63		50
74-83-9	Bromomethane	3800	250		50
75-15-0	Carbon disulfide	3400	63		50
56-23-5	Carbon tetrachloride	3800	63		50
108-90-7	Chlorobenzene	3400	63		50
75-00-3	Chloroethane	4600	320	6	50
67-66-3	Chloroform	3700	63		50
74-87-3	Chloromethane	3100	320		50
156-59-2	cis-1,2-Dichloroethylene	3600	63		50
10061-01-5	cis-1,3-Dichloropropylene	3600	63		50
110-82-7	Cyclohexane	3500	320		50
124-48-1	Dibromochloromethane	3700	63		50
74-95-3	Dibromomethane	3800	63		50

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Sample Number: AB07402 SS-03 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
75-71-8	Dichlorodifluoromethane	3100	320		50
60-29-7	Diethyl ether	3800	250		50
108-20-3	Diisopropyl Ether	3400	320		50
100-41-4	Ethylbenzene	3500	63		50
637-92-3	Ethyltertiarybutylether	3600	320		50
67-72-1	Hexachloroethane	3600	320		50
98-82-8	Isopropylbenzene	3500	63		50
108383/106423	m & p - Xylene	7500	130		50
74-88-4	Methyl iodide	3000	63		50
75-09-2	Methylene chloride	3500	130		50
1634-04-4	Methyltertiarybutylether	3500	63		50
91-20-3	Naphthalene	4200	320	X	50
104-51-8	n-Butylbenzene	3700	63		50
103-65-1	n-Propylbenzene	3500	63		50
95-47-6	o-Xylene	3800	63		50
99-87-6	p-Isopropyl toluene	3500	63		50
135-98-8	sec-Butylbenzene	3500	63		50
100-42-5	Styrene	3400	63		50
98-06-6	tert-Butylbenzene	3400	63		50
75-65-0	tertiary Butyl Alcohol	23000	3200		50
994-05-8	tertiaryAmylmethylether	3600	320		50
127-18-4	Tetrachloroethylene	3400	63		50
109-99-9	Tetrahydrofuran	4000	320		50
108-88-3	Toluene	3800	63		50
156-60-5	trans-1,2-Dichloroethylene	3400	63		50
10061-02-6	trans-1,3-Dichloropropylene	3900	63		50
110-57-6	trans-1,4-Dichloro-2-butene	4500	320	6Z	50
79-01-6	Trichloroethylene	3400	63		50
75-69-4	Trichlorofluoromethane	5000	63	6	50
75-01-4	Vinyl chloride	3400	63	Z	50

Sample is a matrix spike.
Compounds spiked at 3170 ug/Kg, except tertiary butyl alcohol spiked at 15850 ug/Kg & m&p-xylene spiked at 6340 ug/Kg.

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Sample **AB07402** **SS-03 MS**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	1.8	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.50	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	48	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	100	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	160	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	110	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	11	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	110	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	94	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	120	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	12000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	240	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	300	mg/Kg dry	1	4	11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	99	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	100	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	97	mg/Kg dry	0.2	7	11/30/2007	6020	KS
7440-22-4	Silver - Sediment	9.7	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	79	mg/Kg dry	0.5	3	11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	290	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	89.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07403 SS-03 MSD

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	80.7			
SURROGATE	#Tetrachloro-m-xylene#	78.6			
72-54-8	4,4'-DDD	91	22	7	1.0
72-55-9	4,4'-DDE	99	22		1.0
50-29-3	4,4'-DDT	100	22		1.0
319-84-6	a-BHC	90	11		1.0
5103-71-9	a-Chlordane	95	22		1.0
309-00-2	Aldrin	95	22		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	95	22		1.0
319-86-8	d-BHC	99	22		1.0
60-57-1	Dieldrin	96	22		1.0
959-98-8	Endosulfan I	87	22		1.0
33213-65-9	Endosulfan II	95	22		1.0
1031-07-8	Endosulfan sulfate	100	22		1.0
72-20-8	Endrin	100	22		1.0
7421-93-4	Endrin aldehyde	82	22		1.0
53494-70-5	Endrin ketone	99	22		1.0
58-89-9	g-BHC (Lindane)	90	22		1.0
5103-74-2	g-Chlordane	83	22		1.0
76-44-8	Heptachlor	95	22		1.0
1024-57-3	Heptachlor epoxide	87	22		1.0
87-82-1	Hexabromobenzene	100	110	T	1.0
72-43-5	Methoxychlor	110	56		1.0
2385-85-5	Mirex	87	56		1.0
59080-40-9	PBB (BP-6)	87	280	T	1.0
8001-35-2	Toxaphene	Not Detected	190		1.0

Sample is a matrix spike.
Pesticides are spiked at 100 ug/Kg wet weight.

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Sample Number: AB07403 SS-03 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	79.5			
SURROGATE	#2,4,6-Tribromophenol#	91.5			
SURROGATE	#2-Fluorophenol#	69.5			
SURROGATE	#Nitrobenzene - D5#	73.1			
SURROGATE	#Phenol - D6#	76.6			
SURROGATE	#p-Terphenyl-d14#	108			
120-82-1	1,2,4-Trichlorobenzene	1700	220		1.0
95-95-4	2,4,5-Trichlorophenol	3800	370		1.0
88-06-2	2,4,6-Trichlorophenol	3700	370		1.0
120-83-2	2,4-Dichlorophenol	3900	370		1.0
105-67-9	2,4-Dimethylphenol	3700	370		1.0
51-28-5	2,4-Dinitrophenol	1300	1900	T5Z	1.0
121-14-2	2,4-Dinitrotoluene	1900	280		1.0
606-20-2	2,6-Dinitrotoluene	2000	280		1.0
91-58-7	2-Chloronaphthalene	2000	220		1.0
95-57-8	2-Chlorophenol	3300	370		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	3300	1900	Z	1.0
91-57-6	2-Methylnaphthalene	2100	280		1.0
95-48-7	2-Methylphenol (o-Cresol)	3700	370		1.0
88-74-4	2-Nitroaniline	2000	560		1.0
88-75-5	2-Nitrophenol	3500	370		1.0
108394,106445	3 & 4-Methylphenol	3400	740		1.0
99-09-2	3-Nitroaniline	1400	560		1.0
101-55-3	4-Bromophenyl phenyl ether	2300	220		1.0
59-50-7	4-Chloro-3-methyl-phenol	3900	220		1.0
7005-72-3	4-Chlorodiphenylether	1800	110		1.0
100-01-6	4-Nitroaniline	1000	560		1.0
100-02-7	4-Nitrophenol	3100	1900	Z	1.0
83-32-9	Acenaphthene	2200	110		1.0
208-96-8	Acenaphthylene	2300	110		1.0
120-12-7	Anthracene	2400	110		1.0
103-33-3	Azobenzene	2300	220		1.0
56-55-3	Benzo[a]anthracene	2800	110		1.0
50-32-8	Benzo[a]pyrene	3000	220		1.0
205-99-2	Benzo[b]fluoranthene	2900	220		1.0
191-24-2	Benzo[g,h,i]perylene	2400	220	5	1.0
207-08-9	Benzo[k]fluoranthene	2500	220		1.0
100-51-6	Benzyl Alcohol	2400	2800	T	1.0
111-91-1	Bis(2-chloroethoxy)methane	1700	220		1.0
111-44-4	Bis(2-chloroethyl)ether	1500	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	1600	110		1.0

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Sample Number: AB07403 SS-03 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	2500	280		1.0
85-68-7	Butyl benzyl phthalate	2400	280		1.0
86-74-8	Carbazole	2000	280		1.0
218-01-9	Chrysene	3200	110		1.0
53-70-3	Dibenz[a,h]anthracene	2300	220		1.0
132-64-9	Dibenzofuran	2100	280		1.0
84-66-2	Diethylphthalate	1900	280		1.0
131-11-3	Dimethyl phthalate	2000	280		1.0
84-74-2	Di-n-butyl phthalate	2100	280		1.0
117-84-0	Di-n-octyl phthalate	2100	280		1.0
206-44-0	Fluoranthene	3300	110		1.0
86-73-7	Fluorene	1900	110		1.0
118-74-1	Hexachlorobenzene	2100	220		1.0
87-68-3	Hexachlorobutadiene	1600	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	470	1100	T5Z	1.0
67-72-1	Hexachloroethane	1300	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	2600	220		1.0
78-59-1	Isophorone	1500	110		1.0
91-20-3	Naphthalene	2000	110		1.0
98-95-3	Nitrobenzene	1600	220		1.0
67-75-9	N-Nitrosodimethylamine	1800	280	6	1.0
621-64-7	N-Nitrosodi-n-propylamine	1500	220		1.0
86-30-6	N-Nitrosodiphenylamine	2600	220		1.0
87-86-5	Pentachlorophenol	2600	1900	Z=800	1.0
85-01-8	Phenanthrene	3300	110		1.0
108-95-2	Phenol	3600	370		1.0
129-00-0	Pyrene	4000	110		1.0

Sample is a matrix spike.
Phenol compounds are spiked at 4000 ug/Kg wet weight.
Base Neutral compounds are spiked at 2000 ug/Kg wet weight.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.72			
SURROGATE	#Bromofluorobenzene#	125			
SURROGATE	#Dibromofluoromethane#	161			
SURROGATE	#Toluene-d8#	142			
630-20-6	1,1,1,2-Tetrachloroethane	3600	63		50

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Sample Number: AB07403 SS-03 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
71-55-6	1,1,1-Trichloroethane	4100	63		50
79-34-5	1,1,2,2-Tetrachloroethane	3800	63		50
79-00-5	1,1,2-Trichloroethane	3500	63		50
75-34-3	1,1-Dichloroethane	3200	63		50
75-35-4	1,1-Dichloroethylene	3700	63		50
87-61-6	1,2,3-Trichlorobenzene	3700	320		50
96-18-4	1,2,3-Trichloropropane	4100	63		50
526-73-8	1,2,3-Trimethylbenzene	3600	63		50
120-82-1	1,2,4-Trichlorobenzene	3600	320		50
95-63-6	1,2,4-Trimethylbenzene	3700	63		50
96-12-8	1,2-Dibromo-3-chloropropane	4200	320		50
106-93-4	1,2-Dibromoethane	3800	63	Z	50
95-50-1	1,2-Dichlorobenzene	3400	63		50
107-06-2	1,2-Dichloroethane	4100	63	6	50
78-87-5	1,2-Dichloropropane	3400	63		50
108-67-8	1,3,5-Trimethylbenzene	3600	63		50
541-73-1	1,3-Dichlorobenzene	3400	63		50
106-46-7	1,4-Dichlorobenzene	3400	63		50
78-93-3	2-Butanone (MEK)	5100	320	7	50
591-78-6	2-Hexanone	5200	320	6,7	50
91-57-6	2-Methylnaphthalene	5100	320	X	50
67-64-1	2-Propanone (acetone)	7400	1300	6	50
108-10-1	4-Methyl-2-pentanone (MIBK)	4200	320		50
107-13-1	Acrylonitrile	3500	320	Z	50
71-43-2	Benzene	3500	63		50
108-86-1	Bromobenzene	3500	63		50
74-97-5	Bromochloromethane	3600	63		50
75-27-4	Bromodichloromethane	3800	63		50
75-25-2	Bromoform	3600	63		50
74-83-9	Bromomethane	3500	250		50
75-15-0	Carbon disulfide	3300	63		50
56-23-5	Carbon tetrachloride	3900	63		50
108-90-7	Chlorobenzene	3400	63		50
75-00-3	Chloroethane	4400	320	6	50
67-66-3	Chloroform	3700	63		50
74-87-3	Chloromethane	3200	320		50
156-59-2	cis-1,2-Dichloroethylene	3500	63		50
10061-01-5	cis-1,3-Dichloropropylene	3600	63		50
110-82-7	Cyclohexane	3600	320		50
124-48-1	Dibromochloromethane	3800	63		50
74-95-3	Dibromomethane	3700	63		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07403 SS-03 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
75-71-8	Dichlorodifluoromethane	3000	320		50
60-29-7	Diethyl ether	3800	250		50
108-20-3	Diisopropyl Ether	3400	320		50
100-41-4	Ethylbenzene	3500	63		50
637-92-3	Ethyltertiarybutylether	3600	320		50
67-72-1	Hexachloroethane	3700	320		50
98-82-8	Isopropylbenzene	3400	63		50
108383,106423	m & p - Xylene	7500	130		50
74-88-4	Methyl Iodide	3100	63		50
75-09-2	Methylene chloride	3500	130		50
1634-04-4	Methyltertiarybutylether	3500	63		50
91-20-3	Naphthalene	4300	320	X	50
104-51-8	n-Butylbenzene	3600	63		50
103-65-1	n-Propylbenzene	3500	63		50
95-47-6	o-Xylene	3800	63		50
99-87-6	p-Isopropyl toluene	3500	63		50
135-98-8	sec-Butylbenzene	3400	63		50
100-42-5	Styrene	3400	63		50
98-06-6	tert-Butylbenzene	3400	63		50
75-65-0	tertiary Butyl Alcohol	23000	3200		50
994-05-8	tertiaryAmylmethylether	3700	320		50
127-18-4	Tetrachloroethylene	3400	63		50
109-99-9	Tetrahydrofuran	4000	320		50
108-88-3	Toluene	3800	63		50
156-60-5	trans-1,2-Dichloroethylene	3400	63		50
10061-02-6	trans-1,3-Dichloropropylene	3900	63		50
110-57-6	trans-1,4-Dichloro-2-butene	4500	320	6Z	50
79-01-6	Trichloroethylene	3500	63		50
75-69-4	Trichlorofluoromethane	4900	63	6	50
75-01-4	Vinyl chloride	3300	63	Z	50

Sample is a matrix spike duplicate.
Compounds spiked at 3170 ug/Kg, except tertiary butyl alcohol spiked at 15850 ug/Kg & m&p-xylene spiked at 6340 ug/Kg.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample **AB07403** **SS-03 MSD**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	1.9	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	45	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	48	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	97	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	160	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	100	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	10	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	99	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	87	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	27000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	220	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	290	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	97	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	95	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	84	mg/Kg dry	0.2	7	11/30/2007	6020	KS
7440-22-4	Silver - Sediment	9.2	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	83	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	280	mg/Kg dry	1	3	11/30/2007	6020	KS
	% Total Solids	89.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07404 SS-04

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	91.6			
SURROGATE	#Tetrachloro-m-xylene#	77.4			
72-54-8	4,4'-DDD	Not Detected	21		1.0
72-55-9	4,4'-DDE	Not Detected	21		1.0
50-29-3	4,4'-DDT	Not Detected	21		1.0
319-84-6	a-BHC	Not Detected	10		1.0
5103-71-9	a-Chlordane	Not Detected	21		1.0
309-00-2	Aldrin	Not Detected	21		1.0
12674-11-2	Aroclor 1016	Not Detected	100		1.0
11104-28-2	Aroclor 1221	Not Detected	100		1.0
11141-16-5	Aroclor 1232	Not Detected	100		1.0
53469-21-9	Aroclor 1242	Not Detected	100		1.0
12672-29-6	Aroclor 1248	Not Detected	100		1.0
11097-69-1	Aroclor 1254	Not Detected	100		1.0
11096-82-5	Aroclor 1260	Not Detected	100		1.0
37324-23-5	Aroclor 1262	Not Detected	100		1.0
11100-14-4	Aroclor 1268	Not Detected	100		1.0
319-85-7	b-BHC	Not Detected	21		1.0
319-86-8	d-BHC	Not Detected	21		1.0
60-57-1	Dieldrin	Not Detected	21		1.0
959-98-8	Endosulfan I	Not Detected	21		1.0
33213-65-9	Endosulfan II	Not Detected	21		1.0
1031-07-8	Endosulfan sulfate	Not Detected	21		1.0
72-20-8	Endrin	Not Detected	21		1.0
7421-93-4	Endrin aldehyde	Not Detected	21		1.0
53494-70-5	Endrin ketone	Not Detected	21		1.0
58-89-9	g-BHC (Lindane)	Not Detected	21		1.0
5103-74-2	g-Chlordane	Not Detected	21		1.0
76-44-8	Heptachlor	Not Detected	21		1.0
1024-57-3	Heptachlor epoxide	Not Detected	21		1.0
87-82-1	Hexabromobenzene	Not Detected	100		1.0
72-43-5	Methoxychlor	Not Detected	52		1.0
2385-85-5	Mirex	Not Detected	52		1.0
59080-40-9	PBB (BP-6)	Not Detected	260		1.0
8001-35-2	Toxaphene	Not Detected	180		1.0

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07404 SS-04

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	79.0			
SURROGATE	#2,4,6-Tribromophenol#	74.9			
SURROGATE	#2-Fluorophenol#	70.2			
SURROGATE	#Nitrobenzene - D5#	72.1			
SURROGATE	#Phenol - D6#	76.3			
SURROGATE	#p-Terphenyl-d14#	89.6			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	210		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	340		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	340		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	340		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	340		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1800	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	260		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	260		1.0
91-58-7	2-Chloronaphthalene	Not Detected	210		1.0
95-57-8	2-Chlorophenol	Not Detected	340		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1800	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	260		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	340		1.0
88-74-4	2-Nitroaniline	Not Detected	520		1.0
88-75-5	2-Nitrophenol	Not Detected	340		1.0
108394,106445	3-&4-Methylphenol	Not Detected	690		1.0
99-09-2	3-Nitroaniline	Not Detected	520		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	210		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	210		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	100		1.0
100-01-6	4-Nitroaniline	Not Detected	520		1.0
100-02-7	4-Nitrophenol	Not Detected	1800	Z	1.0
83-32-9	Acenaphthene	Not Detected	100		1.0
208-96-8	Acenaphthylene	Not Detected	100		1.0
120-12-7	Anthracene	Not Detected	100		1.0
103-33-3	Azobenzene	Not Detected	210		1.0
56-55-3	Benzo[a]anthracene	Not Detected	100		1.0
50-32-8	Benzo[a]pyrene	Not Detected	210		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	210		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	210		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	210		1.0
100-51-6	Benzyl Alcohol	Not Detected	2600		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	210		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	100		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	100		1.0

CAS# : Chemical Abstract Service Registry Number
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ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07404 SS-04

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	260		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	260		1.0
86-74-8	Carbazole	Not Detected	260		1.0
218-01-9	Chrysene	Not Detected	100		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	210	5	1.0
132-64-9	Dibenzofuran	Not Detected	260		1.0
84-66-2	Diethylphthalate	Not Detected	260		1.0
131-11-3	Dimethyl phthalate	Not Detected	260		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	260		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	260		1.0
206-44-0	Fluoranthene	Not Detected	100		1.0
86-73-7	Fluorene	Not Detected	100		1.0
118-74-1	Hexachlorobenzene	Not Detected	210		1.0
87-68-3	Hexachlorobutadiene	Not Detected	100	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1000	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	100		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	210		1.0
78-59-1	Isophorone	Not Detected	100		1.0
91-20-3	Naphthalene	Not Detected	100		1.0
98-95-3	Nitrobenzene	Not Detected	210		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	260		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	210		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	210		1.0
87-86-5	Pentachlorophenol	Not Detected	1800	Z=800	1.0
85-01-8	Phenanthrene	Not Detected	100		1.0
108-95-2	Phenol	Not Detected	340		1.0
129-00-0	Pyrene	Not Detected	100		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	8.79			
SURROGATE	#Bromofluorobenzene#	117			
SURROGATE	#Dibromofluoromethane#	133			
SURROGATE	#Toluene-d8#	120			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	61		50
71-55-6	1,1,1-Trichloroethane	Not Detected	61		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	61		50

CAS# : Chemical Abstract Service Registry Number
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ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07404 SS-04

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	61		50
75-34-3	1,1-Dichloroethane	Not Detected	61		50
75-35-4	1,1-Dichloroethylene	Not Detected	61		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	300		50
96-18-4	1,2,3-Trichloropropane	Not Detected	61		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	61		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	300		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	61		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	300		50
106-93-4	1,2-Dibromoethane	Not Detected	61	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	61		50
107-06-2	1,2-Dichloroethane	Not Detected	61		50
78-87-5	1,2-Dichloropropane	Not Detected	61		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	61		50
541-73-1	1,3-Dichlorobenzene	Not Detected	61		50
106-46-7	1,4-Dichlorobenzene	Not Detected	61		50
78-93-3	2-Butanone (MEK)	Not Detected	300	7	50
591-78-6	2-Hexanone	Not Detected	300	7	50
91-57-6	2-Methylnaphthalene	530	300	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1200		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	300		50
107-13-1	Acrylonitrile	Not Detected	300	Z	50
71-43-2	Benzene	Not Detected	61		50
108-86-1	Bromobenzene	Not Detected	61		50
74-97-5	Bromochloromethane	Not Detected	61		50
75-27-4	Bromodichloromethane	Not Detected	61		50
75-25-2	Bromoform	Not Detected	61		50
74-83-9	Bromomethane	Not Detected	240		50
75-15-0	Carbon disulfide	Not Detected	61		50
56-23-5	Carbon tetrachloride	Not Detected	61		50
108-90-7	Chlorobenzene	Not Detected	61		50
75-00-3	Chloroethane	Not Detected	300		50
67-66-3	Chloroform	Not Detected	61		50
74-87-3	Chloromethane	Not Detected	300		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	61		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	61		50
110-82-7	Cyclohexane	Not Detected	300		50
124-48-1	Dibromochloromethane	Not Detected	61		50
74-95-3	Dibromomethane	Not Detected	61		50
75-71-8	Dichlorodifluoromethane	Not Detected	300		50
60-29-7	Diethyl ether	Not Detected	240		50

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Sample Number: AB07404 SS-04

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	300		50
100-41-4	Ethylbenzene	Not Detected	61		50
637-92-3	Ethyltertiarybutylether	Not Detected	300		50
67-72-1	Hexachloroethane	Not Detected	300		50
98-82-8	Isopropylbenzene	Not Detected	61		50
108383,106423	m & p -Xylene	Not Detected	120		50
74-88-4	Methyl iodide	Not Detected	61		50
75-09-2	Methylene chloride	Not Detected	120		50
1634-04-4	Methyltertiarybutylether	Not Detected	61		50
91-20-3	Naphthalene	Not Detected	300	X	50
104-51-8	n-Butylbenzene	Not Detected	61		50
103-65-1	n-Propylbenzene	Not Detected	61		50
95-47-6	o-Xylene	Not Detected	61		50
99-87-6	p-Isopropyl toluene	Not Detected	61		50
135-98-8	sec-Butylbenzene	Not Detected	61		50
100-42-5	Styrene	Not Detected	61		50
98-06-6	tert-Butylbenzene	Not Detected	61		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3000		50
994-05-8	tertiaryAmylmethylether	Not Detected	300		50
127-18-4	Tetrachloroethylene	Not Detected	61		50
109-99-9	Tetrahydrofuran	Not Detected	300		50
108-88-3	Toluene	Not Detected	61		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	61		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	61		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	300	Z	50
79-01-6	Trichloroethylene	Not Detected	61		50
75-69-4	Trichlorofluoromethane	Not Detected	61		50
75-01-4	Vinyl chloride	Not Detected	61	Z	50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample AB07404 SS-04

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	3.4	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	ND	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	0.82	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	2.6	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	1300	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	2.1	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	85	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	15	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	3.9	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	96.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07405 SS-05

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	88.5			
SURROGATE	#Tetrachloro-m-xylene#	84.0			
72-54-8	4,4'-DDD	Not Detected	21	7	1.0
72-55-9	4,4'-DDE	Not Detected	21		1.0
50-29-3	4,4'-DDT	Not Detected	21		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	21		1.0
309-00-2	Aldrin	Not Detected	21		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	21		1.0
319-86-8	d-BHC	Not Detected	21		1.0
60-57-1	Dieldrin	Not Detected	21		1.0
959-98-8	Endosulfan I	Not Detected	21		1.0
33213-65-9	Endosulfan II	Not Detected	21		1.0
1031-07-8	Endosulfan sulfate	Not Detected	21		1.0
72-20-8	Endrin	Not Detected	21		1.0
7421-93-4	Endrin aldehyde	Not Detected	21		1.0
53494-70-5	Endrin ketone	Not Detected	21		1.0
58-89-9	g-BHC (Lindane)	Not Detected	21		1.0
5103-74-2	g-Chlordane	Not Detected	21		1.0
76-44-8	Heptachlor	Not Detected	21		1.0
1024-57-3	Heptachlor epoxide	Not Detected	21		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	53		1.0
2385-85-5	Mirex	Not Detected	53		1.0
59080-40-9	PBB (BP-6)	Not Detected	270		1.0
8001-35-2	Toxaphene	Not Detected	180		1.0

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07405 SS-05

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	82.8			
SURROGATE	#2,4,6-Tribromophenol#	75.4			
SURROGATE	#2-Fluorophenol#	66.0			
SURROGATE	#Nitrobenzene - D5#	74.2			
SURROGATE	#Phenol - D6#	77.4			
SURROGATE	#p-Terphenyl-d14#	90.4			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	210		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	350		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	350		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	350		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	350		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1800	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	270		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	270		1.0
91-58-7	2-Chloronaphthalene	Not Detected	210		1.0
95-57-8	2-Chlorophenol	Not Detected	350		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1800	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	270		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	350		1.0
88-74-4	2-Nitroaniline	Not Detected	530		1.0
88-75-5	2-Nitrophenol	Not Detected	350		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	700		1.0
99-09-2	3-Nitroaniline	Not Detected	530		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	210		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	210		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	530		1.0
100-02-7	4-Nitrophenol	Not Detected	1800	Z	1.0
83-32-9	Acenaphthene	Not Detected	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	Not Detected	110		1.0
103-33-3	Azobenzene	Not Detected	210		1.0
56-55-3	Benzo[a]anthracene	170	110		1.0
50-32-8	Benzo[a]pyrene	200	210	J	1.0
205-99-2	Benzo[b]fluoranthene	320	210		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	210		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	210		1.0
100-51-6	Benzyl Alcohol	Not Detected	2700		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	210		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07405 SS-05

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	270		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	270		1.0
86-74-8	Carbazole	Not Detected	270		1.0
218-01-9	Chrysene	230	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	210	5	1.0
132-64-9	Dibenzofuran	Not Detected	270		1.0
84-66-2	Diethylphthalate	Not Detected	270		1.0
131-11-3	Dimethyl phthalate	Not Detected	270		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	270		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	270		1.0
206-44-0	Fluoranthene	380	110		1.0
86-73-7	Fluorene	Not Detected	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	210		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	210		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	Not Detected	110		1.0
98-95-3	Nitrobenzene	Not Detected	210		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	270		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	210		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	210		1.0
87-86-5	Pentachlorophenol	Not Detected	1800	Z=800	1.0
85-01-8	Phenanthrene	240	110		1.0
108-95-2	Phenol	Not Detected	350		1.0
129-00-0	Pyrene	360	110		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.76			
SURROGATE	#Bromofluorobenzene#	132			
SURROGATE	#Dibromofluoromethane#	155			
SURROGATE	#Toluene-d8#	136			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	58		50
71-55-6	1,1,1-Trichloroethane	Not Detected	58		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	58		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07405 SS-05

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	58		50
75-34-3	1,1-Dichloroethane	Not Detected	58		50
75-35-4	1,1-Dichloroethylene	Not Detected	58		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	290		50
96-18-4	1,2,3-Trichloropropane	Not Detected	58		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	58		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	290		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	58		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	290		50
106-93-4	1,2-Dibromoethane	Not Detected	58	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	58		50
107-06-2	1,2-Dichloroethane	Not Detected	58		50
78-87-5	1,2-Dichloropropane	Not Detected	58		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	58		50
541-73-1	1,3-Dichlorobenzene	Not Detected	58		50
106-46-7	1,4-Dichlorobenzene	Not Detected	58		50
78-93-3	2-Butanone (MEK)	Not Detected	290	7	50
591-78-6	2-Hexanone	Not Detected	290	7	50
91-57-6	2-Methylnaphthalene	Not Detected	290	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1200		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	290		50
107-13-1	Acrylonitrile	Not Detected	290	Z	50
71-43-2	Benzene	Not Detected	58		50
108-86-1	Bromobenzene	Not Detected	58		50
74-97-5	Bromochloromethane	Not Detected	58		50
75-27-4	Bromodichloromethane	Not Detected	58		50
75-25-2	Bromoform	Not Detected	58		50
74-83-9	Bromomethane	Not Detected	230		50
75-15-0	Carbon disulfide	Not Detected	58		50
56-23-5	Carbon tetrachloride	Not Detected	58		50
108-90-7	Chlorobenzene	Not Detected	58		50
75-00-3	Chloroethane	Not Detected	290		50
67-66-3	Chloroform	Not Detected	58		50
74-87-3	Chloromethane	Not Detected	290		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	58		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	58		50
110-82-7	Cyclohexane	Not Detected	290		50
124-48-1	Dibromochloromethane	Not Detected	58		50
74-95-3	Dibromomethane	Not Detected	58		50
75-71-8	Dichlorodifluoromethane	Not Detected	290		50
60-29-7	Diethyl ether	Not Detected	230		50

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Sample Number: AB07405 SS-05

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	290		50
100-41-4	Ethylbenzene	Not Detected	58		50
637-92-3	Ethyltertiarybutylether	Not Detected	290		50
67-72-1	Hexachloroethane	Not Detected	290		50
98-82-8	Isopropylbenzene	Not Detected	58		50
108383,106423	m & p - Xylene	Not Detected	120		50
74-88-4	Methyl iodide	Not Detected	58		50
75-09-2	Methylene chloride	Not Detected	120		50
1634-04-4	Methyltertiarybutylether	Not Detected	58		50
91-20-3	Naphthalene	Not Detected	290	X	50
104-51-8	n-Butylbenzene	Not Detected	58		50
103-65-1	n-Propylbenzene	Not Detected	58		50
95-47-6	o-Xylene	Not Detected	58		50
99-87-6	p-Isopropyl toluene	Not Detected	58		50
135-98-8	sec-Butylbenzene	Not Detected	58		50
100-42-5	Styrene	Not Detected	58		50
98-06-6	tert-Butylbenzene	Not Detected	58		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2900		50
994-05-8	tertiary Amylmethylether	Not Detected	290		50
127-18-4	Tetrachloroethylene	Not Detected	58		50
109-99-9	Tetrahydrofuran	Not Detected	290		50
108-88-3	Toluene	Not Detected	58		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	58		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	58		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	290	Z	50
79-01-6	Trichloroethylene	Not Detected	58		50
75-69-4	Trichlorofluoromethane	Not Detected	58		50
75-01-4	Vinyl chloride	Not Detected	58	Z	50

CAS# : Chemical Abstract Service Registry Number
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Sample **AB07405** **SS-05**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.36	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.30	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	1.3	mg/Kg dry	0.5		12/03/2007	6020	KS
7440-39-3	Barium - Sediment	10	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.24	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	3.7	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	6.3	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	3200	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	16	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	100	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.25	mg/Kg dry	0.2		12/03/2007	6020	KS
	Result is estimated due to inter-replicate sample analysis RSD >10%							
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	4.4	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	35	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	93.7	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07406 SS-06

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	80.1			
SURROGATE	#Tetrachloro-m-xylene#	74.6			
72-54-8	4,4'-DDD	Not Detected	23	7	1.0
72-55-9	4,4'-DDE	Not Detected	23		1.0
50-29-3	4,4'-DDT	Not Detected	23		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	23		1.0
309-00-2	Aldrin	Not Detected	23		1.0
12674-11-2	Aroclor 1016	Not Detected	650	K	1.0
11104-28-2	Aroclor 1221	Not Detected	650	K	1.0
11141-16-5	Aroclor 1232	Not Detected	650	K	1.0
53469-21-9	Aroclor 1242	Not Detected	650	K	1.0
12672-29-6	Aroclor 1248	Not Detected	650	K	1.0
11097-69-1	Aroclor 1254	550	110	JA	1.0
11096-82-5	Aroclor 1260	330	110	JA	1.0
37324-23-5	Aroclor 1262	Not Detected	330	K	1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	23		1.0
319-86-8	d-BHC	Not Detected	23		1.0
60-57-1	Dieldrin	Not Detected	23		1.0
959-98-8	Endosulfan I	Not Detected	23		1.0
33213-65-9	Endosulfan II	Not Detected	23		1.0
1031-07-8	Endosulfan sulfate	Not Detected	23		1.0
72-20-8	Endrin	Not Detected	23		1.0
7421-93-4	Endrin aldehyde	Not Detected	23		1.0
53494-70-5	Endrin ketone	Not Detected	23		1.0
58-89-9	g-BHC (Lindane)	Not Detected	23		1.0
5103-74-2	g-Chlordane	Not Detected	23		1.0
76-44-8	Heptachlor	Not Detected	23		1.0
1024-57-3	Heptachlor epoxide	Not Detected	23		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	57		1.0
2385-85-5	Mirex	Not Detected	57		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	190		1.0

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07406 SS-06

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	73.2			
SURROGATE	#2,4,6-Tribromophenol#	70.3			
SURROGATE	#2-Fluorophenol#	68.3			
SURROGATE	#Nitrobenzene - D5#	72.8			
SURROGATE	#Phenol - D6#	73.9			
SURROGATE	#p-Terphenyl-d14#	91.6			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	230		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	380		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	380		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	380		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	380		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1900	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	230		1.0
95-57-8	2-Chlorophenol	Not Detected	380		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1900	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	290		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	380		1.0
88-74-4	2-Nitroaniline	Not Detected	570		1.0
88-75-5	2-Nitrophenol	Not Detected	380		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	760		1.0
99-09-2	3-Nitroaniline	Not Detected	570		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	230		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	230		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	570		1.0
100-02-7	4-Nitrophenol	Not Detected	1900	Z	1.0
83-32-9	Acenaphthene	Not Detected	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	110	110		1.0
103-33-3	Azobenzene	Not Detected	230		1.0
56-55-3	Benzo[a]anthracene	340	110		1.0
50-32-8	Benzo[a]pyrene	390	230		1.0
205-99-2	Benzo[b]fluoranthene	550	230		1.0
191-24-2	Benzo[g,h,i]perylene	310	230		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	230		1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	230		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07406 SS-06

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butylbenzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	Not Detected	290		1.0
218-01-9	Chrysene	440	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	230		1.0
132-64-9	Dibenzofuran	Not Detected	290		1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	870	110		1.0
86-73-7	Fluorene	Not Detected	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	230		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	240	230		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	160	110		1.0
98-95-3	Nitrobenzene	Not Detected	230		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	230		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	230		1.0
87-86-5	Pentachlorophenol	Not Detected	1900	Z=800	1.0
85-01-8	Phenanthrene	610	110		1.0
108-95-2	Phenol	Not Detected	380		1.0
129-00-0	Pyrene	850	110		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.18			
SURROGATE	#Bromofluorobenzene#	139			
SURROGATE	#Dibromofluoromethane#	158			
SURROGATE	#Toluene-d8#	140			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	64		50
71-55-6	1,1,1-Trichloroethane	Not Detected	64		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	64		50

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Sample Number: AB07406 SS-06

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	64		50
75-34-3	1,1-Dichloroethane	Not Detected	64		50
75-35-4	1,1-Dichloroethylene	Not Detected	64		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	320		50
96-18-4	1,2,3-Trichloropropane	Not Detected	64		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	64		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	320		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	64		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	320		50
106-93-4	1,2-Dibromoethane	Not Detected	64	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	64		50
107-06-2	1,2-Dichloroethane	Not Detected	64		50
78-87-5	1,2-Dichloropropane	Not Detected	64		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	64		50
541-73-1	1,3-Dichlorobenzene	Not Detected	64		50
106-46-7	1,4-Dichlorobenzene	Not Detected	64		50
78-93-3	2-Butanone (MEK)	Not Detected	320	7	50
591-78-6	2-Hexanone	Not Detected	320	7	50
91-57-6	2-Methylnaphthalene	Not Detected	320	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1300		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	320		50
107-13-1	Acrylonitrile	Not Detected	320	Z	50
71-43-2	Benzene	Not Detected	64		50
108-86-1	Bromobenzene	Not Detected	64		50
74-97-5	Bromochloromethane	Not Detected	64		50
75-27-4	Bromodichloromethane	Not Detected	64		50
75-25-2	Bromoform	Not Detected	64		50
74-83-9	Bromomethane	Not Detected	250		50
75-15-0	Carbon disulfide	Not Detected	64		50
56-23-5	Carbon tetrachloride	Not Detected	64		50
108-90-7	Chlorobenzene	Not Detected	64		50
75-00-3	Chloroethane	Not Detected	320		50
67-66-3	Chloroform	Not Detected	64		50
74-87-3	Chloromethane	Not Detected	320		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	64		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	64		50
110-82-7	Cyclohexane	Not Detected	320		50
124-48-1	Dibromochloromethane	Not Detected	64		50
74-95-3	Dibromomethane	Not Detected	64		50
75-71-8	Dichlorodifluoromethane	Not Detected	320		50
60-29-7	Diethyl ether	Not Detected	250		50

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Sample Number: AB07406 SS-06

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	320		50
100-41-4	Ethylbenzene	Not Detected	64		50
637-92-3	Ethyltertiarybutylether	Not Detected	320		50
67-72-1	Hexachloroethane	Not Detected	320		50
98-82-8	Isopropylbenzene	Not Detected	64		50
108383,106423	m & p - Xylene	Not Detected	130		50
74-88-4	Methyl iodide	Not Detected	64		50
75-09-2	Methylene chloride	Not Detected	130		50
1634-04-4	Methyltertiarybutylether	Not Detected	64		50
91-20-3	Naphthalene	Not Detected	320	X	50
104-51-8	n-Butylbenzene	Not Detected	64		50
103-65-1	n-Propylbenzene	Not Detected	64		50
95-47-6	o-Xylene	Not Detected	64		50
99-87-6	p-Isopropyl toluene	Not Detected	64		50
135-98-8	sec-Butylbenzene	Not Detected	64		50
100-42-5	Styrene	Not Detected	64		50
98-06-6	tert-Butylbenzene	Not Detected	64		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3200		50
994-05-8	tertiaryAmylmethylether	Not Detected	320		50
127-18-4	Tetrachloroethylene	Not Detected	64		50
109-99-9	Tetrahydrofuran	Not Detected	320		50
108-88-3	Toluene	Not Detected	64		50
156-60-5	trans-1-2-Dichloroethylene	Not Detected	64		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	64		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	320	Z	50
79-01-6	Trichloroethylene	Not Detected	64		50
75-69-4	Trichlorofluoromethane	Not Detected	64		50
75-01-4	Vinyl chloride	Not Detected	64	Z	50

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Sample **AB07406** **SS-06**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	1.0	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.06	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	1.8	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	30	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.30	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.38	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	13	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.6	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	4600	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	63	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	150	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	10	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.42	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	6.7	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	160	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	87.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07407 SS-07

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	80.2			
SURROGATE	#Tetrachloro-m-xylene#	79.4			
72-54-8	4,4'-DDD	Not Detected	22	7	1.0
72-55-9	4,4'-DDE	Not Detected	22		1.0
50-29-3	4,4'-DDT	Not Detected	22		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	22		1.0
309-00-2	Aldrin	Not Detected	22		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	22		1.0
319-86-8	d-BHC	Not Detected	22		1.0
60-57-1	Dieldrin	Not Detected	22		1.0
959-98-8	Endosulfan I	Not Detected	22		1.0
33213-65-9	Endosulfan II	Not Detected	22		1.0
1031-07-8	Endosulfan sulfate	Not Detected	22		1.0
72-20-8	Endrin	Not Detected	22		1.0
7421-93-4	Endrin aldehyde	Not Detected	22		1.0
53494-70-5	Endrin ketone	Not Detected	22		1.0
58-89-9	g-BHC (Lindane)	Not Detected	22		1.0
5103-74-2	g-Chlordane	Not Detected	22		1.0
76-44-8	Heptachlor	Not Detected	22		1.0
1024-57-3	Heptachlor epoxide	Not Detected	22		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	55		1.0
2385-85-5	Mirex	Not Detected	55		1.0
59080-40-9	PBB (BP-6)	Not Detected	270		1.0
8001-35-2	Toxaphene	Not Detected	190		1.0

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07407 SS-07

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	84.4			
SURROGATE	#2,4,6-Tribromophenol#	75.7			
SURROGATE	#2-Fluorophenol#	74.7			
SURROGATE	#Nitrobenzene - D5#	77.8			
SURROGATE	#Phenol - D6#	80.9			
SURROGATE	#p-Terphenyl-d14#	86.1			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	220		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	360		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	360		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	360		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	360		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1900	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	270		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	270		1.0
91-58-7	2-Chloronaphthalene	Not Detected	220		1.0
95-57-8	2-Chlorophenol	Not Detected	360		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1900	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	270		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	360		1.0
88-74-4	2-Nitroaniline	Not Detected	550		1.0
88-75-5	2-Nitrophenol	Not Detected	360		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	720		1.0
99-09-2	3-Nitroaniline	Not Detected	550		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	220		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	220		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	550		1.0
100-02-7	4-Nitrophenol	Not Detected	1900	Z	1.0
83-32-9	Acenaphthene	Not Detected	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	Not Detected	110		1.0
103-33-3	Azobenzene	Not Detected	220		1.0
56-55-3	Benzo[a]anthracene	Not Detected	110		1.0
50-32-8	Benzo[a]pyrene	Not Detected	220		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	220		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	220		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	220		1.0
100-51-6	Benzyl Alcohol	Not Detected	2700		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	220		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07407 SS-07

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	270		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	270		1.0
86-74-8	Carbazole	Not Detected	270		1.0
218-01-9	Chrysene	Not Detected	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	220	5	1.0
132-64-9	Dibenzofuran	Not Detected	270		1.0
84-66-2	Diethylphthalate	Not Detected	270		1.0
131-11-3	Dimethyl phthalate	Not Detected	270		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	270		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	270		1.0
206-44-0	Fluoranthene	120	110		1.0
86-73-7	Fluorene	Not Detected	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	220		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	220		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	Not Detected	110		1.0
98-95-3	Nitrobenzene	Not Detected	220		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	270		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	220		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	220		1.0
87-86-5	Pentachlorophenol	Not Detected	1900	Z=800.	1.0
85-01-8	Phenanthrene	79	110	T	1.0
108-95-2	Phenol	Not Detected	360		1.0
129-00-0	Pyrene	110	110		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.41			
SURROGATE	#Bromofluorobenzene#	128			
SURROGATE	#Dibromofluoromethane#	140			
SURROGATE	#Toluene-d8#	130			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	57		50
71-55-6	1,1,1-Trichloroethane	Not Detected	57		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	57		50

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Sample Number: AB07407 SS-07

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	57		50
75-34-3	1,1-Dichloroethane	Not Detected	57		50
75-35-4	1,1-Dichloroethylene	Not Detected	57		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	280		50
96-18-4	1,2,3-Trichloropropane	Not Detected	57		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	57		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	280		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	57		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	280		50
106-93-4	1,2-Dibromoethane	Not Detected	57	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	57		50
107-06-2	1,2-Dichloroethane	Not Detected	57		50
78-87-5	1,2-Dichloropropane	Not Detected	57		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	57		50
541-73-1	1,3-Dichlorobenzene	Not Detected	57		50
106-46-7	1,4-Dichlorobenzene	Not Detected	57		50
78-93-3	2-Butanone (MEK)	Not Detected	280		50
591-78-6	2-Hexanone	Not Detected	280		50
91-57-6	2-Methylnaphthalene	Not Detected	280	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1100		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	280		50
107-13-1	Acrylonitrile	Not Detected	280	Z	50
71-43-2	Benzene	Not Detected	57		50
108-86-1	Bromobenzene	Not Detected	57		50
74-97-5	Bromochloromethane	Not Detected	57		50
75-27-4	Bromodichloromethane	Not Detected	57		50
75-25-2	Bromoform	Not Detected	57		50
74-83-9	Bromomethane	Not Detected	230		50
75-15-0	Carbon disulfide	Not Detected	57		50
56-23-5	Carbon tetrachloride	Not Detected	57		50
108-90-7	Chlorobenzene	Not Detected	57		50
75-00-3	Chloroethane	Not Detected	280		50
67-66-3	Chloroform	Not Detected	57		50
74-87-3	Chloromethane	Not Detected	280		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	57		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	57		50
110-82-7	Cyclohexane	Not Detected	280		50
124-48-1	Dibromochloromethane	Not Detected	57		50
74-95-3	Dibromomethane	Not Detected	57		50
75-71-8	Dichlorodifluoromethane	Not Detected	280		50
60-29-7	Diethyl ether	Not Detected	230		50

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Sample Number: AB07407 SS-07

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	280		50
100-41-4	Ethylbenzene	Not Detected	57		50
637-92-3	Ethyltertiarybutylether	Not Detected	280		50
67-72-1	Hexachloroethane	Not Detected	280		50
98-82-8	Isopropylbenzene	Not Detected	57		50
108383-106423	m & p - Xylene	Not Detected	110		50
74-88-4	Methyl iodide	Not Detected	57		50
75-09-2	Methylene chloride	Not Detected	110		50
1634-04-4	Methyltertiarybutylether	Not Detected	57		50
91-20-3	Naphthalene	Not Detected	280	X	50
104-51-8	n-Butylbenzene	Not Detected	57		50
103-65-1	n-Propylbenzene	Not Detected	57		50
95-47-6	o-Xylene	Not Detected	57		50
99-87-6	p-Isopropyl-toluene	Not Detected	57		50
135-98-8	sec-Butylbenzene	Not Detected	57		50
100-42-5	Styrene	Not Detected	57		50
98-06-6	tert-Butylbenzene	Not Detected	57		50
75-65-0	tertiary-Butyl-Alcohol	Not Detected	2800		50
994-05-8	tertiaryAmylmethylether	Not Detected	280		50
127-18-4	Tetrachloroethylene	Not Detected	57		50
109-99-9	Tetrahydrofuran	Not Detected	280		50
108-88-3	Toluene	Not Detected	57		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	57		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	57		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	280	Z	50
79-01-6	Trichloroethylene	Not Detected	57		50
75-69-4	Trichlorofluoromethane	Not Detected	57		50
75-01-4	Vinyl chloride	Not Detected	57	Z	50

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Sample **AB07407** **SS-07**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	0.94	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	19	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	6.6	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.4	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	5.5	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	3900	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	100	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	8.0	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	6.1	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	33	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	91.7	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07408 SS-08

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/21/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	80.1			
SURROGATE	#Tetrachloro-m-xylene#	77.9			
72-54-8	4,4'-DDD	Not Detected	24	7	1.0
72-55-9	4,4'-DDE	Not Detected	24		1.0
50-29-3	4,4'-DDT	Not Detected	24		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	24		1.0
309-00-2	Aldrin	Not Detected	24		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	Not Detected	120		1.0
11096-82-5	Aroclor 1260	Not Detected	120		1.0
37324-23-5	Aroclor 1262	Not Detected	120		1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	24		1.0
319-86-8	d-BHC	Not Detected	24		1.0
60-57-1	Dieldrin	Not Detected	24		1.0
959-98-8	Endosulfan I	Not Detected	24		1.0
33213-65-9	Endosulfan II	Not Detected	24		1.0
1031-07-8	Endosulfan sulfate	Not Detected	24		1.0
72-20-8	Endrin	Not Detected	24		1.0
7421-93-4	Endrin aldehyde	Not Detected	24		1.0
53494-70-5	Endrin ketone	Not Detected	24		1.0
58-89-9	g-BHC (Lindane)	Not Detected	24		1.0
5103-74-2	g-Chlordane	Not Detected	24		1.0
76-44-8	Heptachlor	Not Detected	24		1.0
1024-57-3	Heptachlor epoxide	Not Detected	24		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	59		1.0
2385-85-5	Mirex	Not Detected	59		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	200		1.0

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07408 SS-08

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	93.5			
SURROGATE	#2,4,6-Tribromophenol#	61.9			
SURROGATE	#2-Fluorophenol#	81.3			
SURROGATE	#Nitrobenzene - D5#	86.6			
SURROGATE	#Phenol - D6#	89.0			
SURROGATE	#p-Terphenyl-d14#	96.9			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	240		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	390		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	390		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	390		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	390		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2000	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	240		1.0
95-57-8	2-Chlorophenol	Not Detected	390		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2000	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	290		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	390		1.0
88-74-4	2-Nitroaniline	Not Detected	590		1.0
88-75-5	2-Nitrophenol	Not Detected	390		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	780		1.0
99-09-2	3-Nitroaniline	Not Detected	590		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	240		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	240		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	590		1.0
100-02-7	4-Nitrophenol	Not Detected	2000	Z	1.0
83-32-9	Acenaphthene	Not Detected	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	Not Detected	120		1.0
103-33-3	Azobenzene	Not Detected	240		1.0
56-55-3	Benzo[a]anthracene	150	120		1.0
50-32-8	Benzo[a]pyrene	160	240	T	1.0
205-99-2	Benzo[b]fluoranthene	250	240		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	240		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	240		1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	240		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

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ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Laboratory Contacts
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07408 SS-08

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	Not Detected	290		1.0
218-01-9	Chrysene	190	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	240	5	1.0
132-64-9	Dibenzofuran	Not Detected	290		1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	340	120		1.0
86-73-7	Fluorene	Not Detected	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	240		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	240		1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	Not Detected	120		1.0
98-95-3	Nitrobenzene	Not Detected	240		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	240		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	240		1.0
87-86-5	Pentachlorophenol	Not Detected	2000	Z-800	1.0
85-01-8	Phenanthrene	180	120		1.0
108-95-2	Phenol	Not Detected	390		1.0
129-00-0	Pyrene	290	120		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.88			
SURROGATE	#Bromofluorobenzene#	125			
SURROGATE	#Dibromofluoromethane#	137			
SURROGATE	#Toluene-d8#	129			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	69		50
71-55-6	1,1,1-Trichloroethane	Not Detected	69		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	69		50

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Sample Number: AB07408 SS-08

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	69		50
75-34-3	1,1-Dichloroethane	Not Detected	69		50
75-35-4	1,1-Dichloroethylene	Not Detected	69		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	340		50
96-18-4	1,2,3-Trichloropropane	Not Detected	69		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	69		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	340		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	69		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	340		50
106-93-4	1,2-Dibromoethane	Not Detected	69	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	69		50
107-06-2	1,2-Dichloroethane	Not Detected	69		50
78-87-5	1,2-Dichloropropane	Not Detected	69		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	69		50
541-73-1	1,3-Dichlorobenzene	Not Detected	69		50
106-46-7	1,4-Dichlorobenzene	Not Detected	69		50
78-93-3	2-Butanone (MEK)	Not Detected	340		50
591-78-6	2-Hexanone	Not Detected	340		50
91-57-6	2-Methylnaphthalene	Not Detected	340	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1400		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	340		50
107-13-1	Acrylonitrile	Not Detected	340	Z	50
71-43-2	Benzene	Not Detected	69		50
108-86-1	Bromobenzene	Not Detected	69		50
74-97-5	Bromochloromethane	Not Detected	69		50
75-27-4	Bromodichloromethane	Not Detected	69		50
75-25-2	Bromoform	Not Detected	69		50
74-83-9	Bromomethane	Not Detected	270		50
75-15-0	Carbon disulfide	Not Detected	69		50
56-23-5	Carbon tetrachloride	Not Detected	69		50
108-90-7	Chlorobenzene	Not Detected	69		50
75-00-3	Chloroethane	Not Detected	340		50
67-66-3	Chloroform	Not Detected	69		50
74-87-3	Chloromethane	Not Detected	340		50
156-59-2	cis-1-2-Dichloroethylene	Not Detected	69		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	69		50
110-82-7	Cyclohexane	Not Detected	340		50
124-48-1	Dibromochloromethane	Not Detected	69		50
74-95-3	Dibromomethane	Not Detected	69		50
75-71-8	Dichlorodifluoromethane	Not Detected	340		50
60-29-7	Diethyl ether	Not Detected	270		50

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Sample Number: AB07408 SS-08

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	340		50
100-41-4	Ethylbenzene	Not Detected	69		50
637-92-3	Ethyltertiarybutylether	Not Detected	340		50
67-72-1	Hexachloroethane	Not Detected	340		50
98-82-8	Isopropylbenzene	Not Detected	69		50
108383,106423	m & p - Xylene	Not Detected	140		50
74-88-4	Methyl Iodide	Not Detected	69		50
75-09-2	Methylene chloride	Not Detected	140		50
1634-04-4	Methyltertiarybutylether	Not Detected	69		50
91-20-3	Naphthalene	Not Detected	340	X	50
104-51-8	n-Butylbenzene	Not Detected	69		50
103-65-1	n-Propylbenzene	Not Detected	69		50
95-47-6	o-Xylene	Not Detected	69		50
99-87-6	p-Isopropyl toluene	Not Detected	69		50
135-98-8	sec-Butylbenzene	Not Detected	69		50
100-42-5	Styrene	Not Detected	69		50
98-06-6	tert-Butylbenzene	Not Detected	69		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3400		50
994-05-8	tertiaryAmylmethylether	Not Detected	340		50
127-18-4	Tetrachloroethylene	Not Detected	69		50
109-99-9	Tetrahydrofuran	Not Detected	340		50
108-88-3	Toluene	Not Detected	69		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	69		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	69		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	340	Z	50
79-01-6	Trichloroethylene	Not Detected	69		50
75-69-4	Trichlorofluoromethane	Not Detected	69		50
75-01-4	Vinyl chloride	Not Detected	69	Z	50

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Sample **AB07408** **SS-08**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.42	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	2.9	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	58	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.45	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.21	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	11	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	2.6	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	8000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	32	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	180	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	51	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	84.8	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07409 SS-09

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	82.8			
SURROGATE	#Tetrachloro-m-xylene#	83.2			
72-54-8	4,4'-DDD	Not Detected	25	7	1.0
72-55-9	4,4'-DDE	Not Detected	25		1.0
50-29-3	4,4'-DDT	Not Detected	25		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	25		1.0
309-00-2	Aldrin	Not Detected	25		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	Not Detected	120		1.0
11096-82-5	Aroclor 1260	150	120	JD	1.0
37324-23-5	Aroclor 1262	Not Detected	160	K	1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	25		1.0
319-86-8	d-BHC	Not Detected	25		1.0
60-57-1	Dieldrin	Not Detected	25		1.0
959-98-8	Endosulfan I	Not Detected	25		1.0
33213-65-9	Endosulfan II	Not Detected	25		1.0
1031-07-8	Endosulfan sulfate	Not Detected	25		1.0
72-20-8	Endrin	Not Detected	25		1.0
7421-93-4	Endrin aldehyde	Not Detected	25		1.0
53494-70-5	Endrin ketone	Not Detected	25		1.0
58-89-9	g-BHC (Lindane)	Not Detected	25		1.0
5103-74-2	g-Chlordane	Not Detected	25		1.0
76-44-8	Heptachlor	Not Detected	25		1.0
1024-57-3	Heptachlor epoxide	Not Detected	25		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	62		1.0
2385-85-5	Mirex	Not Detected	62		1.0
59080-40-9	PBB (BP-6)	Not Detected	310		1.0
8001-35-2	Toxaphene	Not Detected	210		1.0

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Sample Number: AB07409 SS-09

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	93.9			
SURROGATE	#2,4,6-Tribromophenol#	66.0			
SURROGATE	#2-Fluorophenol#	69.5			
SURROGATE	#Nitrobenzene - D5#	81.0			
SURROGATE	#Phenol - D6#	90.9			
SURROGATE	#p-Terphenyl-d14#	90.5			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	410		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	410		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	410		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	410		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2100	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	310		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	310		1.0
91-58-7	2-Chloronaphthalene	Not Detected	250		1.0
95-57-8	2-Chlorophenol	Not Detected	410		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2100	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	310		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	410		1.0
88-74-4	2-Nitroaniline	Not Detected	620		1.0
88-75-5	2-Nitrophenol	Not Detected	410		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	820		1.0
99-09-2	3-Nitroaniline	Not Detected	620		1.0
101-55-3	4-Bromophenyl-phenyl ether	Not Detected	250		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	250		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	620		1.0
100-02-7	4-Nitrophenol	Not Detected	2100	Z	1.0
83-32-9	Acenaphthene	Not Detected	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	Not Detected	120		1.0
103-33-3	Azobenzene	Not Detected	250		1.0
56-55-3	Benzo[a]anthracene	300	120		1.0
50-32-8	Benzo[a]pyrene	370	250		1.0
205-99-2	Benzo[b]fluoranthene	500	250		1.0
191-24-2	Benzo[g,h,i]perylene	230	250	T	1.0
207-08-9	Benzo[k]fluoranthene	170	250	T	1.0
100-51-6	Benzyl Alcohol	Not Detected	3100		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	250		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

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ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07409 SS-09

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	310		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	310		1.0
86-74-8	Carbazole	Not Detected	310		1.0
218-01-9	Chrysene	380	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	250	5	1.0
132-64-9	Dibenzofuran	Not Detected	310		1.0
84-66-2	Diethylphthalate	Not Detected	310		1.0
131-11-3	Dimethyl phthalate	Not Detected	310		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	310		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	310		1.0
206-44-0	Fluoranthene	800	120		1.0
86-73-7	Fluorene	Not Detected	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	250		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	190	250	T	1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	Not Detected	120		1.0
98-95-3	Nitrobenzene	Not Detected	250		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	310		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	250		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	250		1.0
87-86-5	Pentachlorophenol	Not Detected	2100	Z=800	1.0
85-01-8	Phenanthrene	430	120		1.0
108-95-2	Phenol	Not Detected	410		1.0
129-00-0	Pyrene	620	120		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	11.15			
SURROGATE	#Bromofluorobenzene#	132			
SURROGATE	#Dibromofluoromethane#	137			
SURROGATE	#Toluene-d8#	136			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	73		50
71-55-6	1,1,1-Trichloroethane	Not Detected	73		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	73		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07409 SS-09

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	73		50
75-34-3	1,1-Dichloroethane	Not Detected	73		50
75-35-4	1,1-Dichloroethylene	Not Detected	73		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	360		50
96-18-4	1,2,3-Trichloropropane	Not Detected	73		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	73		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	360		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	73		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	360		50
106-93-4	1,2-Dibromoethane	Not Detected	73	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	73		50
107-06-2	1,2-Dichloroethane	Not Detected	73		50
78-87-5	1,2-Dichloropropane	Not Detected	73		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	73		50
541-73-1	1,3-Dichlorobenzene	Not Detected	73		50
106-46-7	1,4-Dichlorobenzene	Not Detected	73		50
78-93-3	2-Butanone (MEK)	Not Detected	360		50
591-78-6	2-Hexanone	Not Detected	360		50
91-57-6	2-Methylnaphthalene	Not Detected	360	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1500		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	360		50
107-13-1	Acrylonitrile	Not Detected	360	Z	50
71-43-2	Benzene	Not Detected	73		50
108-86-1	Bromobenzene	Not Detected	73		50
74-97-5	Bromochloromethane	Not Detected	73		50
75-27-4	Bromodichloromethane	Not Detected	73		50
75-25-2	Bromoform	Not Detected	73		50
74-83-9	Bromomethane	Not Detected	290		50
75-15-0	Carbon disulfide	Not Detected	73		50
56-23-5	Carbon tetrachloride	Not Detected	73		50
108-90-7	Chlorobenzene	Not Detected	73		50
75-00-3	Chloroethane	Not Detected	360		50
67-66-3	Chloroform	Not Detected	73		50
74-87-3	Chloromethane	Not Detected	360		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	73		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	73		50
110-82-7	Cyclohexane	Not Detected	360		50
124-48-1	Dibromochloromethane	Not Detected	73		50
74-95-3	Dibromomethane	Not Detected	73		50
75-71-8	Dichlorodifluoromethane	Not Detected	360		50
60-29-7	Diethyl ether	Not Detected	290		50

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07409 SS-09

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	360		50
100-41-4	Ethylbenzene	Not Detected	73		50
637-92-3	Ethyltertiarybutylether	Not Detected	360		50
67-72-1	Hexachloroethane	Not Detected	360		50
98-82-8	Isopropylbenzene	Not Detected	73		50
108383;106423	m & p - Xylene	Not Detected	150		50
74-88-4	Methyl iodide	Not Detected	73		50
75-09-2	Methylene chloride	Not Detected	150		50
1634-04-4	Methyltertiarybutylether	Not Detected	73		50
91-20-3	Naphthalene	Not Detected	360	X	50
104-51-8	n-Butylbenzene	Not Detected	73		50
103-65-1	n-Propylbenzene	Not Detected	73		50
95-47-6	o-Xylene	Not Detected	73		50
99-87-6	p-Isopropyl toluene	Not Detected	73		50
135-98-8	sec-Butylbenzene	Not Detected	73		50
100-42-5	Styrene	Not Detected	73		50
98-06-6	tert-Butylbenzene	Not Detected	73		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3600		50
994-05-8	tertiaryAmylmethylether	Not Detected	360		50
127-18-4	Tetrachloroethylene	Not Detected	73		50
109-99-9	Tetrahydrofuran	Not Detected	360		50
108-88-3	Toluene	Not Detected	73		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	73		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	73		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	360	Z	50
79-01-6	Trichloroethylene	Not Detected	73		50
75-69-4	Trichlorofluoromethane	Not Detected	73		50
75-01-4	Vinyl chloride	Not Detected	73	Z	50

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Sample AB07409 SS-09

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.51	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	2.1	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	54	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.36	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	11	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	2.3	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	7300	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	27	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	180	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	53	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	80.8	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07410 SS-10

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	79.5			
SURROGATE	#Tetrachloro-m-xylene#	69.0			
72-54-8	4,4'-DDD	Not Detected	21	7	1.0
72-55-9	4,4'-DDE	Not Detected	21		1.0
50-29-3	4,4'-DDT	Not Detected	21		1.0
319-84-6	a-BHC	Not Detected	10		1.0
5103-71-9	a-Chlordane	Not Detected	21		1.0
309-00-2	Aldrin	Not Detected	21		1.0
12674-11-2	Aroclor 1016	Not Detected	100		1.0
11104-28-2	Aroclor 1221	Not Detected	100		1.0
11141-16-5	Aroclor 1232	Not Detected	100		1.0
53469-21-9	Aroclor 1242	Not Detected	100		1.0
12672-29-6	Aroclor 1248	Not Detected	100		1.0
11097-69-1	Aroclor 1254	Not Detected	100		1.0
11096-82-5	Aroclor 1260	Not Detected	100		1.0
37324-23-5	Aroclor 1262	Not Detected	100		1.0
11100-14-4	Aroclor 1268	Not Detected	100		1.0
319-85-7	b-BHC	Not Detected	21		1.0
319-86-8	d-BHC	Not Detected	21		1.0
60-57-1	Dieldrin	Not Detected	21		1.0
959-98-8	Endosulfan I	Not Detected	21		1.0
33213-65-9	Endosulfan II	Not Detected	21		1.0
1031-07-8	Endosulfan sulfate	Not Detected	21		1.0
72-20-8	Endrin	Not Detected	21		1.0
7421-93-4	Endrin aldehyde	Not Detected	21		1.0
53494-70-5	Endrin ketone	Not Detected	21		1.0
58-89-9	g-BHC (Lindane)	Not Detected	21		1.0
5103-74-2	g-Chlordane	Not Detected	21		1.0
76-44-8	Heptachlor	Not Detected	21		1.0
1024-57-3	Heptachlor epoxide	Not Detected	21		1.0
87-82-1	Hexabromobenzene	Not Detected	100		1.0
72-43-5	Methoxychlor	Not Detected	52		1.0
2385-85-5	Mirex	Not Detected	52		1.0
59080-40-9	PBB (BP-6)	Not Detected	260		1.0
8001-35-2	Toxaphene	Not Detected	180		1.0

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Sample Number: AB07410 SS-10

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2-Fluorobiphenyl#	82.0			
SURROGATE	#2,4,6-Tribromophenol#	73.8			
SURROGATE	#2-Fluorophenol#	71.1			
SURROGATE	#Nitrobenzene - D5#	74.1			
SURROGATE	#Phenol - D6#	78.3			
SURROGATE	#p-Terphenyl-d14#	90.8			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	210		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	340		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	340		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	340		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	340		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1800	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	260		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	260		1.0
91-58-7	2-Chloronaphthalene	Not Detected	210		1.0
95-57-8	2-Chlorophenol	Not Detected	340		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1800	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	260		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	340		1.0
88-74-4	2-Nitroaniline	Not Detected	520		1.0
88-75-5	2-Nitrophenol	Not Detected	340		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	690		1.0
99-09-2	3-Nitroaniline	Not Detected	520		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	210		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	210		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	100		1.0
100-01-6	4-Nitroaniline	Not Detected	520		1.0
100-02-7	4-Nitrophenol	Not Detected	1800	Z	1.0
83-32-9	Acenaphthene	Not Detected	100		1.0
208-96-8	Acenaphthylene	Not Detected	100		1.0
120-12-7	Anthracene	Not Detected	100		1.0
103-33-3	Azobenzene	Not Detected	210		1.0
56-55-3	Benzo[a]anthracene	Not Detected	100		1.0
50-32-8	Benzo[a]pyrene	Not Detected	210		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	210		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	210		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	210		1.0
100-51-6	Benzyl Alcohol	Not Detected	2600		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	210		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	100		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	100		1.0

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Sample Number: AB07410 SS-10

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/21/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	260		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	260		1.0
86-74-8	Carbazole	Not Detected	260		1.0
218-01-9	Chrysene	Not Detected	100		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	210	5	1.0
132-64-9	Dibenzofuran	Not Detected	260		1.0
84-66-2	Diethylphthalate	Not Detected	260		1.0
131-11-3	Dimethyl phthalate	Not Detected	260		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	260		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	260		1.0
206-44-0	Fluoranthene	Not Detected	100		1.0
86-73-7	Fluorene	Not Detected	100		1.0
118-74-1	Hexachlorobenzene	Not Detected	210		1.0
87-68-3	Hexachlorobutadiene	Not Detected	100	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1000	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	100		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	210		1.0
78-59-1	Isophorone	Not Detected	100		1.0
91-20-3	Naphthalene	Not Detected	100		1.0
98-95-3	Nitrobenzene	Not Detected	210		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	260		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	210		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	210		1.0
87-86-5	Pentachlorophenol	Not Detected	1800	Z=800	1.0
85-01-8	Phenanthrene	Not Detected	100		1.0
108-95-2	Phenol	Not Detected	340		1.0
129-00-0	Pyrene	Not Detected	100		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	8.62			
SURROGATE	#Bromofluorobenzene#	120			
SURROGATE	#Dibromofluoromethane#	134			
SURROGATE	#Toluene-d8#	123			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	62		50
71-55-6	1,1,1-Trichloroethane	Not Detected	62		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	62		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Systems Mgmt Unit: George Krisztian

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Sample Number: AB07410 SS-10

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	62		50
75-34-3	1,1-Dichloroethane	Not Detected	62		50
75-35-4	1,1-Dichloroethylene	Not Detected	62		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	310		50
96-18-4	1,2,3-Trichloropropane	Not Detected	62		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	62		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	310		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	62		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	310		50
106-93-4	1,2-Dibromoethane	Not Detected	62	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	62		50
107-06-2	1,2-Dichloroethane	Not Detected	62		50
78-87-5	1,2-Dichloropropane	Not Detected	62		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	62		50
541-73-1	1,3-Dichlorobenzene	Not Detected	62		50
106-46-7	1,4-Dichlorobenzene	Not Detected	62		50
78-93-3	2-Butanone (MEK)	Not Detected	310		50
591-78-6	2-Hexanone	Not Detected	310		50
91-57-6	2-Methylnaphthalene	Not Detected	310	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1200		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	310		50
107-13-1	Acrylonitrile	Not Detected	310	Z	50
71-43-2	Benzene	Not Detected	62		50
108-86-1	Bromobenzene	Not Detected	62		50
74-97-5	Bromochloromethane	Not Detected	62		50
75-27-4	Bromodichloromethane	Not Detected	62		50
75-25-2	Bromoform	Not Detected	62		50
74-83-9	Bromomethane	Not Detected	250		50
75-15-0	Carbon disulfide	Not Detected	62		50
56-23-5	Carbon tetrachloride	Not Detected	62		50
108-90-7	Chlorobenzene	Not Detected	62		50
75-00-3	Chloroethane	Not Detected	310		50
67-66-3	Chloroform	Not Detected	62		50
74-87-3	Chloromethane	Not Detected	310		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	62		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	62		50
110-82-7	Cyclohexane	Not Detected	310		50
124-48-1	Dibromochloromethane	Not Detected	62		50
74-95-3	Dibromomethane	Not Detected	62		50
75-71-8	Dichlorodifluoromethane	Not Detected	310		50
60-29-7	Diethyl ether	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
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mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07410 SS-10

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	310		50
100-41-4	Ethylbenzene	Not Detected	62		50
637-92-3	Ethyltertiarybutylether	Not Detected	310		50
67-72-1	Hexachloroethane	Not Detected	310		50
98-82-8	Isopropylbenzene	Not Detected	62		50
108383,106423	m & p - Xylene	Not Detected	120		50
74-88-4	Methyl Iodide	Not Detected	62		50
75-09-2	Methylene chloride	Not Detected	120		50
1634-04-4	Methyltertiarybutylether	Not Detected	62		50
91-20-3	Naphthalene	Not Detected	310	X	50
104-51-8	n-Butylbenzene	Not Detected	62		50
103-65-1	n-Propylbenzene	Not Detected	62		50
95-47-6	o-Xylene	Not Detected	62		50
99-87-6	p-Isopropyl toluene	Not Detected	62		50
135-98-8	sec-Butylbenzene	Not Detected	62		50
100-42-5	Styrene	Not Detected	62		50
98-06-6	tert-Butylbenzene	Not Detected	62		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3100		50
994-05-8	tertiaryAmylmethylether	Not Detected	310		50
127-18-4	Tetrachloroethylene	Not Detected	62		50
109-99-9	Tetrahydrofuran	Not Detected	310		50
108-88-3	Toluene	Not Detected	62		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	62		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	62		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	310	Z	50
79-01-6	Trichloroethylene	Not Detected	62		50
75-69-4	Trichlorofluoromethane	Not Detected	62		50
75-01-4	Vinyl chloride	Not Detected	62	Z	50

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Sample AB07410 SS-10

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	6.4	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	3.2	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	3.0	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	2100	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	6.7	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	75	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	9.0	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	3.1	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	96.1	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07411 SS-11

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	81.9			
SURROGATE	#Tetrachloro-m-xylene#	76.4			
72-54-8	4,4'-DDD	Not Detected	21		1.0
72-55-9	4,4'-DDE	Not Detected	21		1.0
50-29-3	4,4'-DDT	Not Detected	21		1.0
319-84-6	a-BHC	Not Detected	11		1.0
5103-71-9	a-Chlordane	Not Detected	21		1.0
309-00-2	Aldrin	Not Detected	21		1.0
12674-11-2	Aroclor 1016	Not Detected	110		1.0
11104-28-2	Aroclor 1221	Not Detected	110		1.0
11141-16-5	Aroclor 1232	Not Detected	110		1.0
53469-21-9	Aroclor 1242	Not Detected	110		1.0
12672-29-6	Aroclor 1248	Not Detected	110		1.0
11097-69-1	Aroclor 1254	Not Detected	110		1.0
11096-82-5	Aroclor 1260	Not Detected	110		1.0
37324-23-5	Aroclor 1262	Not Detected	110		1.0
11100-14-4	Aroclor 1268	Not Detected	110		1.0
319-85-7	b-BHC	Not Detected	21		1.0
319-86-8	d-BHC	Not Detected	21		1.0
60-57-1	Dieldrin	Not Detected	21		1.0
959-98-8	Endosulfan I	Not Detected	21		1.0
33213-65-9	Endosulfan II	Not Detected	21		1.0
1031-07-8	Endosulfan sulfate	Not Detected	21		1.0
72-20-8	Endrin	Not Detected	21		1.0
7421-93-4	Endrin aldehyde	Not Detected	21		1.0
53494-70-5	Endrin ketone	Not Detected	21		1.0
58-89-9	g-BHC (Lindane)	Not Detected	21		1.0
5103-74-2	g-Chlordane	Not Detected	21		1.0
76-44-8	Heptachlor	Not Detected	21		1.0
1024-57-3	Heptachlor epoxide	Not Detected	21		1.0
87-82-1	Hexabromobenzene	Not Detected	110		1.0
72-43-5	Methoxychlor	Not Detected	53		1.0
2385-85-5	Mirex	Not Detected	53		1.0
59080-40-9	PBB (BP-6)	Not Detected	270		1.0
8001-35-2	Toxaphene	Not Detected	180		1.0

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Sample Number: AB07411 SS-11

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	80.8			
SURROGATE	#2,4,6-Tribromophenol#	68.6			
SURROGATE	#2-Fluorophenol#	57.0			
SURROGATE	#Nitrobenzene -D5#	66.2			
SURROGATE	#Phenol - D6#	74.1			
SURROGATE	#p-Terphenyl-d14#	78.6			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	210		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	350		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	350		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	350		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	350		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	1800	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	270		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	270		1.0
91-58-7	2-Chloronaphthalene	Not Detected	210		1.0
95-57-8	2-Chlorophenol	Not Detected	350		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	1800	Z	1.0
91-57-6	2-Methylnaphthalene	400	270		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	350		1.0
88-74-4	2-Nitroaniline	Not Detected	530		1.0
88-75-5	2-Nitrophenol	Not Detected	350		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	700		1.0
99-09-2	3-Nitroaniline	Not Detected	530		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	210		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	210		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	110		1.0
100-01-6	4-Nitroaniline	Not Detected	530		1.0
100-02-7	4-Nitrophenol	Not Detected	1800	Z	1.0
83-32-9	Acenaphthene	Not Detected	110		1.0
208-96-8	Acenaphthylene	Not Detected	110		1.0
120-12-7	Anthracene	Not Detected	110		1.0
103-33-3	Azobenzene	Not Detected	210		1.0
56-55-3	Benzo[a]anthracene	Not Detected	110		1.0
50-32-8	Benzo[a]pyrene	Not Detected	210		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	210		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	210		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	210		1.0
100-51-6	Benzyl Alcohol	Not Detected	2700		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	210		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	110		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	110		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
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ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07411 SS-11

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	270		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	270		1.0
86-74-8	Carbazole	Not Detected	270		1.0
218-01-9	Chrysene	Not Detected	110		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	210		1.0
132-64-9	Dibenzofuran	Not Detected	270		1.0
84-66-2	Diethylphthalate	Not Detected	270		1.0
131-11-3	Dimethyl phthalate	Not Detected	270		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	270		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	270		1.0
206-44-0	Fluoranthene	110	110		1.0
86-73-7	Fluorene	Not Detected	110		1.0
118-74-1	Hexachlorobenzene	Not Detected	210		1.0
87-68-3	Hexachlorobutadiene	Not Detected	110	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1100	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	110		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	210		1.0
78-59-1	Isophorone	Not Detected	110		1.0
91-20-3	Naphthalene	240	110		1.0
98-95-3	Nitrobenzene	Not Detected	210		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	270		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	210		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	210		1.0
87-86-5	Pentachlorophenol	Not Detected	1800	Z=800	1.0
85-01-8	Phenanthrene	260	110		1.0
108-95-2	Phenol	Not Detected	350		1.0
129-00-0	Pyrene	110	110		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	11			
SURROGATE	#Bromofluorobenzene#	125			
SURROGATE	#Dibromofluoromethane#	145			
SURROGATE	#Toluene-d8#	129			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	56		50
71-55-6	1,1,1-Trichloroethane	Not Detected	56		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	56		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07411 SS-11

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	56		50
75-34-3	1,1-Dichloroethane	Not Detected	56		50
75-35-4	1,1-Dichloroethylene	Not Detected	56		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	280		50
96-18-4	1,2,3-Trichloropropane	Not Detected	56		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	56		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	280		50
95-63-6	1,2,4-Trimethylbenzene	74	56		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	280		50
106-93-4	1,2-Dibromoethane	Not Detected	56	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	56		50
107-06-2	1,2-Dichloroethane	Not Detected	56		50
78-87-5	1,2-Dichloropropane	Not Detected	56		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	56		50
541-73-1	1,3-Dichlorobenzene	Not Detected	56		50
106-46-7	1,4-Dichlorobenzene	Not Detected	56		50
78-93-3	2-Butanone (MEK)	Not Detected	280		50
591-78-6	2-Hexanone	Not Detected	280		50
91-57-6	2-Methylnaphthalene	Not Detected	280	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1100		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	280		50
107-13-1	Acrylonitrile	Not Detected	280	Z	50
71-43-2	Benzene	Not Detected	56		50
108-86-1	Bromobenzene	Not Detected	56		50
74-97-5	Bromochloromethane	Not Detected	56		50
75-27-4	Bromodichloromethane	Not Detected	56		50
75-25-2	Bromoform	Not Detected	56		50
74-83-9	Bromomethane	Not Detected	220		50
75-15-0	Carbon disulfide	Not Detected	56		50
56-23-5	Carbon tetrachloride	Not Detected	56		50
108-90-7	Chlorobenzene	Not Detected	56		50
75-00-3	Chloroethane	Not Detected	280		50
67-66-3	Chloroform	Not Detected	56		50
74-87-3	Chloromethane	Not Detected	280		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	56		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	56		50
110-82-7	Cyclohexane	Not Detected	280		50
124-48-1	Dibromochloromethane	Not Detected	56		50
74-95-3	Dibromomethane	Not Detected	56		50
75-71-8	Dichlorodifluoromethane	Not Detected	280		50
60-29-7	Diethyl ether	Not Detected	220		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Sample Number: AB07411 SS-11

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	280		50
100-41-4	Ethylbenzene	Not Detected	56		50
637-92-3	Ethyltertiarybutylether	Not Detected	280		50
67-72-1	Hexachloroethane	Not Detected	280		50
98-82-8	Isopropylbenzene	Not Detected	56		50
108383 106423	m & p - Xylene	110	110		50
74-88-4	Methyl iodide	Not Detected	56		50
75-09-2	Methylene chloride	Not Detected	110		50
1634-04-4	Methyltertiarybutylether	Not Detected	56		50
91-20-3	Naphthalene	Not Detected	280	X	50
104-51-8	n-Butylbenzene	Not Detected	56		50
103-65-1	n-Propylbenzene	Not Detected	56		50
95-47-6	o-Xylene	73	56		50
99-87-6	p-Isopropyl toluene	Not Detected	56		50
135-98-8	sec-Butylbenzene	Not Detected	56		50
100-42-5	Styrene	Not Detected	56		50
98-06-6	tert-Butylbenzene	Not Detected	56		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2800		50
994-05-8	tertiaryAmylmethylether	Not Detected	280		50
127-18-4	Tetrachloroethylene	Not Detected	56		50
109-99-9	Tetrahydrofuran	Not Detected	280		50
108-88-3	Toluene	67	56		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	56		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	56		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	280	Z	50
79-01-6	Trichloroethylene	Not Detected	56		50
75-69-4	Trichlorofluoromethane	Not Detected	56		50
75-01-4	Vinyl chloride	Not Detected	56	Z	50

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample **AB07411** **SS-11**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	1.9	mg/Kg dry	0.5		12/03/2007	6020	KS
7440-39-3	Barium - Sediment	33	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.90	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	3.6	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.3	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	4.7	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	2800	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	10	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	260	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	9.2	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.64	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	2.7	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	22	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	94.2	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07412 SB-01

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	78.9			
SURROGATE	#Tetrachloro-m-xylene#	74.2			
72-54-8	4,4'-DDD	Not Detected	27	7	1.0
72-55-9	4,4'-DDE	Not Detected	27		1.0
50-29-3	4,4'-DDT	Not Detected	27		1.0
319-84-6	a-BHC	Not Detected	14		1.0
5103-71-9	a-Chlordane	Not Detected	27		1.0
309-00-2	Aldrin	Not Detected	27		1.0
12674-11-2	Aroclor 1016	Not Detected	220	K	1.0
11104-28-2	Aroclor 1221	Not Detected	220	K	1.0
11141-16-5	Aroclor 1232	Not Detected	220	K	1.0
53469-21-9	Aroclor 1242	210	140		1.0
12672-29-6	Aroclor 1248	Not Detected	220	K	1.0
11097-69-1	Aroclor 1254	Not Detected	140		1.0
11096-82-5	Aroclor 1260	Not Detected	140		1.0
37324-23-5	Aroclor 1262	Not Detected	140		1.0
11100-14-4	Aroclor 1268	Not Detected	140		1.0
319-85-7	b-BHC	Not Detected	27		1.0
319-86-8	d-BHC	Not Detected	27		1.0
60-57-1	Dieldrin	Not Detected	27		1.0
959-98-8	Endosulfan I	Not Detected	27		1.0
33213-65-9	Endosulfan II	Not Detected	27		1.0
1031-07-8	Endosulfan sulfate	Not Detected	27		1.0
72-20-8	Endrin	Not Detected	27		1.0
7421-93-4	Endrin aldehyde	Not Detected	27		1.0
53494-70-5	Endrin ketone	Not Detected	27		1.0
58-89-9	g-BHC (Lindane)	Not Detected	27		1.0
5103-74-2	g-Chlordane	Not Detected	27		1.0
76-44-8	Heptachlor	Not Detected	27		1.0
1024-57-3	Heptachlor epoxide	Not Detected	27		1.0
87-82-1	Hexabromobenzene	Not Detected	140		1.0
72-43-5	Methoxychlor	Not Detected	68		1.0
2385-85-5	Mirex	Not Detected	68		1.0
59080-40-9	PBB (BP-6)	Not Detected	340		1.0
8001-35-2	Toxaphene	Not Detected	230		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07412 SB-01

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	76.7			
SURROGATE	#2,4,6-Tribromophenol#	74.3			
SURROGATE	#2-Fluorophenol#	38.3			
SURROGATE	#Nitrobenzene - D5#	49.8			
SURROGATE	#Phenol - D6#	66.4			
SURROGATE	#p-Terphenyl-d14#	95.9			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	270		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	450		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	450		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	450		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	450		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2300	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	340		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	340		1.0
91-58-7	2-Chloronaphthalene	Not Detected	270		1.0
95-57-8	2-Chlorophenol	Not Detected	450		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2300	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	340		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	450		1.0
88-74-4	2-Nitroaniline	Not Detected	680		1.0
88-75-5	2-Nitrophenol	Not Detected	450		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	900		1.0
99-09-2	3-Nitroaniline	Not Detected	680		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	270		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	270		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	140		1.0
100-01-6	4-Nitroaniline	Not Detected	680		1.0
100-02-7	4-Nitrophenol	Not Detected	2300	Z	1.0
83-32-9	Acenaphthene	Not Detected	140		1.0
208-96-8	Acenaphthylene	Not Detected	140		1.0
120-12-7	Anthracene	Not Detected	140		1.0
103-33-3	Azobenzene	Not Detected	270		1.0
56-55-3	Benzo[a]anthracene	160	140		1.0
50-32-8	Benzo[a]pyrene	Not Detected	270		1.0
205-99-2	Benzo[b]fluoranthene	270	270		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	270		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	270		1.0
100-51-6	Benzyl Alcohol	Not Detected	3400		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	270		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	140		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	140		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Laboratory Contacts
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Sample Number: AB07412 SB-01

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	650	340		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	340		1.0
86-74-8	Carbazole	Not Detected	340		1.0
218-01-9	Chrysene	210	140		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	270		1.0
132-64-9	Dibenzofuran	Not Detected	340		1.0
84-66-2	Diethylphthalate	Not Detected	340		1.0
131-11-3	Dimethyl phthalate	Not Detected	340		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	340		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	340		1.0
206-44-0	Fluoranthene	450	140		1.0
86-73-7	Fluorene	Not Detected	140		1.0
118-74-1	Hexachlorobenzene	Not Detected	270		1.0
87-68-3	Hexachlorobutadiene	Not Detected	140	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1400	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	140		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	270		1.0
78-59-1	Isophorone	Not Detected	140		1.0
91-20-3	Naphthalene	240	140		1.0
98-95-3	Nitrobenzene	Not Detected	270		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	340		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	270		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	270		1.0
87-86-5	Pentachlorophenol	Not Detected	2300	Z=800	1.0
85-01-8	Phenanthrene	260	140		1.0
108-95-2	Phenol	Not Detected	450		1.0
129-00-0	Pyrene	480	140		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/16/2007 **Analyst:** PCR
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.73			
SURROGATE	#Bromofluorobenzene#	116			
SURROGATE	#Dibromofluoromethane#	128			
SURROGATE	#Toluene-d8#	115			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	88		50
71-55-6	1,1,1-Trichloroethane	Not Detected	88		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	88		50

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
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Sample Number: AB07412 SB-01

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/16/2007 **Analyst:** PCR
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	88		50
75-34-3	1,1-Dichloroethane	Not Detected	88		50
75-35-4	1,1-Dichloroethylene	Not Detected	88		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	440		50
96-18-4	1,2,3-Trichloropropane	Not Detected	88		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	88		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	440		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	88		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	440		50
106-93-4	1,2-Dibromoethane	Not Detected	88	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	88		50
107-06-2	1,2-Dichloroethane	Not Detected	88		50
78-87-5	1,2-Dichloropropane	Not Detected	88		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	88		50
541-73-1	1,3-Dichlorobenzene	Not Detected	88		50
106-46-7	1,4-Dichlorobenzene	Not Detected	88		50
78-93-3	2-Butanone (MEK)	Not Detected	440		50
591-78-6	2-Hexanone	Not Detected	440		50
91-57-6	2-Methylnaphthalene	Not Detected	440	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1800		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	440		50
107-13-1	Acrylonitrile	Not Detected	440	Z	50
71-43-2	Benzene	Not Detected	88	7	50
108-86-1	Bromobenzene	Not Detected	88		50
74-97-5	Bromochloromethane	Not Detected	88		50
75-27-4	Bromodichloromethane	Not Detected	88		50
75-25-2	Bromoform	Not Detected	88		50
74-83-9	Bromomethane	Not Detected	350		50
75-15-0	Carbon disulfide	Not Detected	88		50
56-23-5	Carbon tetrachloride	Not Detected	88		50
108-90-7	Chlorobenzene	Not Detected	88	7	50
75-00-3	Chloroethane	Not Detected	440		50
67-66-3	Chloroform	Not Detected	88		50
74-87-3	Chloromethane	Not Detected	440		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	88		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	88		50
110-82-7	Cyclohexane	Not Detected	440		50
124-48-1	Dibromochloromethane	Not Detected	88		50
74-95-3	Dibromomethane	Not Detected	88		50
75-71-8	Dichlorodifluoromethane	Not Detected	440		50
60-29-7	Diethyl ether	Not Detected	350		50

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07412 SB-01

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/16/2007 **Analyst:** PCR
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	440		50
100-41-4	Ethylbenzene	Not Detected	88		50
637-92-3	Ethyltertiarybutylether	Not Detected	440		50
67-72-1	Hexachloroethane	Not Detected	440		50
98-82-8	Isopropylbenzene	Not Detected	88		50
108383,106423	m & p - Xylene	Not Detected	180		50
74-88-4	Methyl iodide	Not Detected	88		50
75-09-2	Methylene chloride	Not Detected	180		50
1634-04-4	Methyltertiarybutylether	Not Detected	88		50
91-20-3	Naphthalene	Not Detected	440	X	50
104-51-8	n-Butylbenzene	Not Detected	88		50
103-65-1	n-Propylbenzene	Not Detected	88		50
95-47-6	o-Xylene	Not Detected	88		50
99-87-6	p-Isopropyl toluene	Not Detected	88		50
135-98-8	sec-Butylbenzene	Not Detected	88		50
100-42-5	Styrene	Not Detected	88		50
98-06-6	tert-Butylbenzene	Not Detected	88		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4400		50
994-05-8	tertiaryAmylmethylether	Not Detected	440		50
127-18-4	Tetrachloroethylene	Not Detected	88		50
109-99-9	Tetrahydrofuran	Not Detected	440		50
108-88-3	Toluene	Not Detected	88	7	50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	88		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	88		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	440	Z	50
79-01-6	Trichloroethylene	Not Detected	88	7	50
75-69-4	Trichlorofluoromethane	Not Detected	88		50
75-01-4	Vinyl chloride	Not Detected	88	Z	50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Systems Mgmt Unit: George Krisztian

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Sample **AB07412** **SB-01**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.14	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.23	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	25	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	57	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.33	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.63	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	50	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	4.7	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	36	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	12000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	61	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	210	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	19	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.68	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.40	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	88	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	73.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07413 SB-02

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	81.6			
SURROGATE	#Tetrachloro-m-xylene#	80.4			
72-54-8	4,4'-DDD	Not Detected	28	7	1.0
72-55-9	4,4'-DDE	Not Detected	28		1.0
50-29-3	4,4'-DDT	Not Detected	28		1.0
319-84-6	a-BHC	Not Detected	14		1.0
5103-71-9	a-Chlordane	Not Detected	28		1.0
309-00-2	Aldrin	Not Detected	28		1.0
12674-11-2	Aroclor 1016	Not Detected	140		1.0
11104-28-2	Aroclor 1221	Not Detected	140		1.0
11141-16-5	Aroclor 1232	Not Detected	140		1.0
53469-21-9	Aroclor 1242	Not Detected	140		1.0
12672-29-6	Aroclor 1248	Not Detected	140		1.0
11097-69-1	Aroclor 1254	Not Detected	140		1.0
11096-82-5	Aroclor 1260	Not Detected	140		1.0
37324-23-5	Aroclor 1262	Not Detected	140		1.0
11100-14-4	Aroclor 1268	Not Detected	140		1.0
319-85-7	b-BHC	Not Detected	28		1.0
319-86-8	d-BHC	Not Detected	28		1.0
60-57-1	Dieldrin	Not Detected	28		1.0
959-98-8	Endosulfan I	Not Detected	28		1.0
33213-65-9	Endosulfan II	Not Detected	28		1.0
1031-07-8	Endosulfan sulfate	Not Detected	28		1.0
72-20-8	Endrin	Not Detected	28		1.0
7421-93-4	Endrin aldehyde	Not Detected	28		1.0
53494-70-5	Endrin ketone	Not Detected	28		1.0
58-89-9	g-BHC (Lindane)	Not Detected	28		1.0
5103-74-2	g-Chlordane	Not Detected	28		1.0
76-44-8	Heptachlor	Not Detected	28		1.0
1024-57-3	Heptachlor epoxide	Not Detected	28		1.0
87-82-1	Hexabromobenzene	Not Detected	140		1.0
72-43-5	Methoxychlor	Not Detected	69		1.0
2385-85-5	Mirex	Not Detected	69		1.0
59080-40-9	PBB (BP-6)	Not Detected	350		1.0
8001-35-2	Toxaphene	Not Detected	240		1.0

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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07413 SB-02

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	76.1			
SURROGATE	#2,4,6-Tribromophenol#	74.5			
SURROGATE	#2-Fluorophenol#	73.1			
SURROGATE	#Nitrobenzene - D5#	79.4			
SURROGATE	#Phenol - D6#	79.6			
SURROGATE	#p-Terphenyl-d14#	77.6			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	280		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	460		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	460		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	460		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	460		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2400	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	350		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	350		1.0
91-58-7	2-Chloronaphthalene	Not Detected	280		1.0
95-57-8	2-Chlorophenol	Not Detected	460		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2400	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	350		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	460		1.0
88-74-4	2-Nitroaniline	Not Detected	690		1.0
88-75-5	2-Nitrophenol	Not Detected	460		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	910		1.0
99-09-2	3-Nitroaniline	Not Detected	690		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	280		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	280		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	140		1.0
100-01-6	4-Nitroaniline	Not Detected	690		1.0
100-02-7	4-Nitrophenol	Not Detected	2400	Z	1.0
83-32-9	Acenaphthene	Not Detected	140		1.0
208-96-8	Acenaphthylene	Not Detected	140		1.0
120-12-7	Anthracene	Not Detected	140		1.0
103-33-3	Azobenzene	Not Detected	280		1.0
56-55-3	Benzo[a]anthracene	Not Detected	140		1.0
50-32-8	Benzo[a]pyrene	Not Detected	280		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	280		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	280		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	280		1.0
100-51-6	Benzyl Alcohol	Not Detected	3500		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	280		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	140		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	140		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07413 SB-02

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	350		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	350		1.0
86-74-8	Carbazole	Not Detected	350		1.0
218-01-9	Chrysene	Not Detected	140		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	280		1.0
132-64-9	Dibenzofuran	Not Detected	350		1.0
84-66-2	Diethylphthalate	Not Detected	350		1.0
131-11-3	Dimethyl phthalate	Not Detected	350		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	350		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	350		1.0
206-44-0	Fluoranthene	210	140		1.0
86-73-7	Fluorene	Not Detected	140		1.0
118-74-1	Hexachlorobenzene	Not Detected	280		1.0
87-68-3	Hexachlorobutadiene	Not Detected	140	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1400	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	140		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	280		1.0
78-59-1	Isophorone	Not Detected	140		1.0
91-20-3	Naphthalene	Not Detected	140		1.0
98-95-3	Nitrobenzene	Not Detected	280		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	350		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	280		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	280		1.0
87-86-5	Pentachlorophenol	Not Detected	2400	Z=800	1.0
85-01-8	Phenanthrene	160	140		1.0
108-95-2	Phenol	Not Detected	460		1.0
129-00-0	Pyrene	150	140		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.13			
SURROGATE	#Bromofluorobenzene#	139			
SURROGATE	#Dibromofluoromethane#	150			
SURROGATE	#Toluene-d8#	141			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	88		50
71-55-6	1,1,1-Trichloroethane	Not Detected	88		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	88		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07413 SB-02

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	88		50
75-34-3	1,1-Dichloroethane	Not Detected	88		50
75-35-4	1,1-Dichloroethylene	Not Detected	88		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	440		50
96-18-4	1,2,3-Trichloropropane	Not Detected	88		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	88		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	440		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	88		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	440		50
106-93-4	1,2-Dibromoethane	Not Detected	88	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	88		50
107-06-2	1,2-Dichloroethane	Not Detected	88		50
78-87-5	1,2-Dichloropropane	Not Detected	88		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	88		50
541-73-1	1,3-Dichlorobenzene	Not Detected	88		50
106-46-7	1,4-Dichlorobenzene	Not Detected	88		50
78-93-3	2-Butanone (MEK)	Not Detected	440		50
591-78-6	2-Hexanone	Not Detected	440		50
91-57-6	2-Methylnaphthalene	Not Detected	440	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1800		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	440		50
107-13-1	Acrylonitrile	Not Detected	440	Z	50
71-43-2	Benzene	Not Detected	88		50
108-86-1	Bromobenzene	Not Detected	88		50
74-97-5	Bromochloromethane	Not Detected	88		50
75-27-4	Bromodichloromethane	Not Detected	88		50
75-25-2	Bromoform	Not Detected	88		50
74-83-9	Bromomethane	Not Detected	350		50
75-15-0	Carbon disulfide	Not Detected	88		50
56-23-5	Carbon tetrachloride	Not Detected	88		50
108-90-7	Chlorobenzene	Not Detected	88		50
75-00-3	Chloroethane	Not Detected	440		50
67-66-3	Chloroform	Not Detected	88		50
74-87-3	Chloromethane	Not Detected	440		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	88		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	88		50
110-82-7	Cyclohexane	Not Detected	440		50
124-48-1	Dibromochloromethane	Not Detected	88		50
74-95-3	Dibromomethane	Not Detected	88		50
75-71-8	Dichlorodifluoromethane	Not Detected	440		50
60-29-7	Diethyl ether	Not Detected	350		50

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Sample Number: AB07413 SB-02

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	440		50
100-41-4	Ethylbenzene	Not Detected	88		50
637-92-3	Ethyltertiarybutylether	Not Detected	440		50
67-72-1	Hexachloroethane	Not Detected	440		50
98-82-8	Isopropylbenzene	Not Detected	88		50
108383,106423	m & p - Xylene	Not Detected	180		50
74-88-4	Methyl iodide	Not Detected	88		50
75-09-2	Methylene chloride	Not Detected	180		50
1634-04-4	Methyltertiarybutylether	Not Detected	88		50
91-20-3	Naphthalene	Not Detected	440	X	50
104-51-8	n-Butylbenzene	Not Detected	88		50
103-65-1	n-Propylbenzene	Not Detected	88		50
95-47-6	o-Xylene	Not Detected	88		50
99-87-6	p-Isopropyl toluene	Not Detected	88		50
135-98-8	sec-Butylbenzene	Not Detected	88		50
100-42-5	Styrene	Not Detected	88		50
98-06-6	tert-Butylbenzene	Not Detected	88		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4400		50
994-05-8	tertiaryAmylmethylether	Not Detected	440		50
127-18-4	Tetrachloroethylene	Not Detected	88		50
109-99-9	Tetrahydrofuran	Not Detected	440		50
108-88-3	Toluene	Not Detected	88		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	88		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	88		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	440	Z	50
79-01-6	Trichloroethylene	Not Detected	88		50
75-69-4	Trichlorofluoromethane	Not Detected	88		50
75-01-4	Vinyl chloride	Not Detected	88	Z	50

CAS# : Chemical Abstract Service Registry Number
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Sample **AB07413** **SB-02**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.15	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.10	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	3.4	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	37	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.30	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	10	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	4.7	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	7.7	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	12000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	300	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.41	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	43	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	72.2	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07414 SB-03

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	66.5			
SURROGATE	#Tetrachloro-m-xylene#	82.3			
72-54-8	4,4'-DDD	Not Detected	36		1.0
72-55-9	4,4'-DDE	Not Detected	36		1.0
50-29-3	4,4'-DDT	Not Detected	36		1.0
319-84-6	a-BHC	Not Detected	18		1.0
5103-71-9	a-Chlordane	Not Detected	36		1.0
309-00-2	Aldrin	Not Detected	36		1.0
12674-11-2	Aroclor 1016	Not Detected	180		1.0
11104-28-2	Aroclor 1221	Not Detected	180		1.0
11141-16-5	Aroclor 1232	Not Detected	180		1.0
53469-21-9	Aroclor 1242	Not Detected	180		1.0
12672-29-6	Aroclor 1248	Not Detected	180		1.0
11097-69-1	Aroclor 1254	Not Detected	180		1.0
11096-82-5	Aroclor 1260	Not Detected	180		1.0
37324-23-5	Aroclor 1262	Not Detected	180		1.0
11100-14-4	Aroclor 1268	Not Detected	180		1.0
319-85-7	b-BHC	Not Detected	36		1.0
319-86-8	d-BHC	Not Detected	36		1.0
60-57-1	Dieldrin	Not Detected	36		1.0
959-98-8	Endosulfan I	Not Detected	36		1.0
33213-65-9	Endosulfan II	Not Detected	36		1.0
1031-07-8	Endosulfan sulfate	Not Detected	36		1.0
72-20-8	Endrin	Not Detected	36		1.0
7421-93-4	Endrin aldehyde	Not Detected	36		1.0
53494-70-5	Endrin ketone	Not Detected	36		1.0
58-89-9	g-BHC (Lindane)	Not Detected	36		1.0
5103-74-2	g-Chlordane	Not Detected	36		1.0
76-44-8	Heptachlor	Not Detected	36		1.0
1024-57-3	Heptachlor epoxide	Not Detected	36		1.0
87-82-1	Hexabromobenzene	Not Detected	180		1.0
72-43-5	Methoxychlor	Not Detected	89		1.0
2385-85-5	Mirex	Not Detected	89		1.0
59080-40-9	PBB (BP-6)	Not Detected	450		1.0
8001-35-2	Toxaphene	Not Detected	300		1.0

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Sample Number: AB07414 SB-03

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2-Fluorobiphenyl#	81.0			
SURROGATE	#2,4,6-Tribromophenol#	86.3			
SURROGATE	#2-Fluorophenol#	71.8			
SURROGATE	#Nitrobenzene - D5#	74.7			
SURROGATE	#Phenol - D6#	82.0			
SURROGATE	#p-Terphenyl-d14#	91.4			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	710		2.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	1200		2.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	1200		2.0
120-83-2	2,4-Dichlorophenol	Not Detected	1200		2.0
105-67-9	2,4-Dimethylphenol	Not Detected	1200		2.0
51-28-5	2,4-Dinitrophenol	Not Detected	6100	Z	2.0
121-14-2	2,4-Dinitrotoluene	Not Detected	890		2.0
606-20-2	2,6-Dinitrotoluene	Not Detected	890		2.0
91-58-7	2-Chloronaphthalene	Not Detected	710		2.0
95-57-8	2-Chlorophenol	Not Detected	1200		2.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	6100	Z	2.0
91-57-6	2-Methylnaphthalene	Not Detected	890		2.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	1200		2.0
88-74-4	2-Nitroaniline	Not Detected	1800		2.0
88-75-5	2-Nitrophenol	Not Detected	1200		2.0
108394,106445	3 & 4-Methylphenol	Not Detected	2400		2.0
99-09-2	3-Nitroaniline	Not Detected	1800		2.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	710		2.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	710		2.0
7005-72-3	4-Chlorodiphenylether	Not Detected	360		2.0
100-01-6	4-Nitroaniline	Not Detected	1800		2.0
100-02-7	4-Nitrophenol	Not Detected	6100	Z	2.0
83-32-9	Acenaphthene	520	360		2.0
208-96-8	Acenaphthylene	Not Detected	360		2.0
120-12-7	Anthracene	890	360		2.0
103-33-3	Azobenzene	Not Detected	710		2.0
56-55-3	Benzo[a]anthracene	1400	360		2.0
50-32-8	Benzo[a]pyrene	1300	710		2.0
205-99-2	Benzo[b]fluoranthene	1800	710		2.0
191-24-2	Benzo[g,h,i]perylene	590	710	T	2.0
207-08-9	Benzo[k]fluoranthene	650	710	T	2.0
100-51-6	Benzyl Alcohol	Not Detected	8900	5	2.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	710		2.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	360		2.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	360		2.0

CAS# : Chemical Abstract Service Registry Number
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ug / L : microgram / liter (ppb)
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Sample Number: AB07414 SB-03

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	890		2.0
85-68-7	Butyl benzyl phthalate	Not Detected	890		2.0
86-74-8	Carbazole	Not Detected	890		2.0
218-01-9	Chrysene	1700	360		2.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	710		2.0
132-64-9	Dibenzofuran	Not Detected	890		2.0
84-66-2	Diethylphthalate	Not Detected	890		2.0
131-11-3	Dimethyl phthalate	Not Detected	890		2.0
84-74-2	Di-n-butyl phthalate	Not Detected	890		2.0
117-84-0	Di-n-octyl phthalate	Not Detected	890		2.0
206-44-0	Fluoranthene	Not Detected	360		2.0
86-73-7	Fluorene	650	360		2.0
118-74-1	Hexachlorobenzene	Not Detected	710		2.0
87-68-3	Hexachlorobutadiene	Not Detected	360	Z	2.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	3600	3Z	2.0
67-72-1	Hexachloroethane	Not Detected	360		2.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	710		2.0
78-59-1	Isophorone	Not Detected	360		2.0
91-20-3	Naphthalene	570	360		2.0
98-95-3	Nitrobenzene	Not Detected	710		2.0
67-75-9	N-Nitrosodimethylamine	Not Detected	890		2.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	710		2.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	710		2.0
87-86-5	Pentachlorophenol	Not Detected	6100	Z=800	2.0
85-01-8	Phenanthrene	3500	360		2.0
108-95-2	Phenol	Not Detected	1200		2.0
129-00-0	Pyrene	3300	360		2.0

RLs raised due to matrix interference.
Unidentified peaks present in sample.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.49			
SURROGATE	#Bromofluorobenzene#	129			
SURROGATE	#Dibromofluoromethane#	139			
SURROGATE	#Toluene-d8#	130			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	120		50
71-55-6	1,1,1-Trichloroethane	Not Detected	120		50

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Sample Number: AB07414 SB-03

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	120		50
79-00-5	1,1,2-Trichloroethane	Not Detected	120		50
75-34-3	1,1-Dichloroethane	Not Detected	120		50
75-35-4	1,1-Dichloroethylene	Not Detected	120		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	620		50
96-18-4	1,2,3-Trichloropropane	Not Detected	120		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	120		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	620		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	120		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	620		50
106-93-4	1,2-Dibromoethane	Not Detected	120	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	120		50
107-06-2	1,2-Dichloroethane	Not Detected	120		50
78-87-5	1,2-Dichloropropane	Not Detected	120		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	120		50
541-73-1	1,3-Dichlorobenzene	Not Detected	120		50
106-46-7	1,4-Dichlorobenzene	Not Detected	120		50
78-93-3	2-Butanone (MEK)	Not Detected	620		50
591-78-6	2-Hexanone	Not Detected	620		50
91-57-6	2-Methylnaphthalene	Not Detected	620	X	50
67-64-1	2-Propanone (acetone)	Not Detected	2500		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	620		50
107-13-1	Acrylonitrile	Not Detected	620	Z	50
71-43-2	Benzene	Not Detected	120		50
108-86-1	Bromobenzene	Not Detected	120		50
74-97-5	Bromochloromethane	Not Detected	120		50
75-27-4	Bromodichloromethane	Not Detected	120		50
75-25-2	Bromoform	Not Detected	120		50
74-83-9	Bromomethane	Not Detected	500		50
75-15-0	Carbon disulfide	Not Detected	120		50
56-23-5	Carbon tetrachloride	Not Detected	120		50
108-90-7	Chlorobenzene	Not Detected	120		50
75-00-3	Chloroethane	Not Detected	620		50
67-66-3	Chloroform	Not Detected	120		50
74-87-3	Chloromethane	Not Detected	620		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	120		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	120		50
110-82-7	Cyclohexane	Not Detected	620		50
124-48-1	Dibromochloromethane	Not Detected	120		50
74-95-3	Dibromomethane	Not Detected	120		50
75-71-8	Dichlorodifluoromethane	Not Detected	620		50

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Sample Number: AB07414 SB-03

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
60-29-7	Diethyl ether	Not Detected	500		50
108-20-3	Diisopropyl Ether	Not Detected	620		50
100-41-4	Ethylbenzene	Not Detected	120		50
637-92-3	Ethyltertiarybutylether	Not Detected	620		50
67-72-1	Hexachloroethane	Not Detected	620		50
98-82-8	Isopropylbenzene	Not Detected	120		50
108383,106423	m & p - Xylene	Not Detected	250		50
74-88-4	Methyl iodide	Not Detected	120		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	120		50
91-20-3	Naphthalene	Not Detected	620	X	50
104-51-8	n-Butylbenzene	Not Detected	120		50
103-65-1	n-Propylbenzene	Not Detected	120		50
95-47-6	o-Xylene	Not Detected	120		50
99-87-6	p-Isopropyl toluene	Not Detected	120		50
135-98-8	sec-Butylbenzene	Not Detected	120		50
100-42-5	Styrene	Not Detected	120		50
98-06-6	tert-Butylbenzene	Not Detected	120		50
75-65-0	tertiary Butyl Alcohol	Not Detected	6200		50
994-05-8	tertiary Amylmethylether	Not Detected	620		50
127-18-4	Tetrachloroethylene	Not Detected	120		50
109-99-9	Tetrahydrofuran	Not Detected	620		50
108-88-3	Toluene	Not Detected	120		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	120		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	120		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	620	Z	50
79-01-6	Trichloroethylene	Not Detected	120		50
75-69-4	Trichlorofluoromethane	Not Detected	120		50
75-01-4	Vinyl chloride	Not Detected	120	Z	50

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Sample **AB07414** **SB-03**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	1.8	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed			N	11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	3.2	mg/Kg dry	0.05	N	11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	2.0	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	22	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	120	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	1.6	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-47-3	Chromium - Sediment	12	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	7.4	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	71	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	49000	mg/Kg dry	500	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	340	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	380	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	3.4	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	21	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	2.1	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.29	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	21	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	550	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	56.0	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07415 SB-03 MS

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	64.6			
SURROGATE	#Tetrachloro-m-xylene#	81.9			
72-54-8	4,4'-DDD	140	36		1.0
72-55-9	4,4'-DDE	130	36		1.0
50-29-3	4,4'-DDT	120	36	5	1.0
319-84-6	a-BHC	140	18		1.0
5103-71-9	a-Chlordane	130	36		1.0
309-00-2	Aldrin	150	36		1.0
12674-11-2	Aroclor 1016	Not Detected	180		1.0
11104-28-2	Aroclor 1221	Not Detected	180		1.0
11141-16-5	Aroclor 1232	Not Detected	180		1.0
53469-21-9	Aroclor 1242	Not Detected	180		1.0
12672-29-6	Aroclor 1248	Not Detected	180		1.0
11097-69-1	Aroclor 1254	Not Detected	180		1.0
11096-82-5	Aroclor 1260	Not Detected	180		1.0
37324-23-5	Aroclor 1262	Not Detected	180		1.0
11100-14-4	Aroclor 1268	Not Detected	180		1.0
319-85-7	b-BHC	150	36		1.0
319-86-8	d-BHC	150	36		1.0
60-57-1	Dieldrin	130	36		1.0
959-98-8	Endosulfan I	130	36		1.0
33213-65-9	Endosulfan II	140	36		1.0
1031-07-8	Endosulfan sulfate	140	36		1.0
72-20-8	Endrin	130	36		1.0
7421-93-4	Endrin aldehyde	100	36		1.0
53494-70-5	Endrin ketone	130	36		1.0
58-89-9	g-BHC (Lindane)	140	36		1.0
5103-74-2	g-Chlordane	130	36		1.0
76-44-8	Heptachlor	150	36		1.0
1024-57-3	Heptachlor epoxide	130	36		1.0
87-82-1	Hexabromobenzene	110	180	T	1.0
72-43-5	Methoxychlor	120	89	5	1.0
2385-85-5	Mirex	120	89		1.0
59080-40-9	PBB (BP-6)	110	450	T	1.0
8001-35-2	Toxaphene	Not Detected	300		1.0

Sample is a matrix spike.
Pesticides are spiked at 100 ug/Kg wet weight.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07415 SB-03 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	76.0			
SURROGATE	#2,4,6-Tribromophenol#	89.3			
SURROGATE	#2-Fluorophenol#	67.7			
SURROGATE	#Nitrobenzene - D5#	74.8			
SURROGATE	#Phenol - D6#	72.8			
SURROGATE	#p-Terphenyl-d14#	104			
120-82-1	1,2,4-Trichlorobenzene	5300	710		2.0
95-95-4	2,4,5-Trichlorophenol	11000	1200		2.0
88-06-2	2,4,6-Trichlorophenol	11000	1200		2.0
120-83-2	2,4-Dichlorophenol	11000	1200		2.0
105-67-9	2,4-Dimethylphenol	12000	1200		2.0
51-28-5	2,4-Dinitrophenol	6000	6100	Z	2.0
121-14-2	2,4-Dinitrotoluene	5300	890		2.0
606-20-2	2,6-Dinitrotoluene	5600	890		2.0
91-58-7	2-Chloronaphthalene	5600	710		2.0
95-57-8	2-Chlorophenol	10000	1200		2.0
534-52-1	2-Methyl-4,6-dinitrophenol	9100	6100	Z	2.0
91-57-6	2-Methylnaphthalene	5500	890		2.0
95-48-7	2-Methylphenol (o-Cresol)	11000	1200		2.0
88-74-4	2-Nitroaniline	5600	1800		2.0
88-75-5	2-Nitrophenol	11000	1200		2.0
108394-106445	3 & 4-Methylphenol	11000	2400		2.0
99-09-2	3-Nitroaniline	1700	1800	T	2.0
101-55-3	4-Bromophenyl-phenyl ether	6400	710		2.0
59-50-7	4-Chloro-3-methyl-phenol	11000	710		2.0
7005-72-3	4-Chlorodiphenylether	5900	360		2.0
100-01-6	4-Nitroaniline	2000	1800		2.0
100-02-7	4-Nitrophenol	9500	6100	Z	2.0
83-32-9	Acenaphthene	5900	360		2.0
208-96-8	Acenaphthylene	6200	360		2.0
120-12-7	Anthracene	6600	360		2.0
103-33-3	Azobenzene	5500	710		2.0
56-55-3	Benzo[a]anthracene	7300	360		2.0
50-32-8	Benzo[a]pyrene	6600	7100		20
205-99-2	Benzo[b]fluoranthene	6400	7100		20
191-24-2	Benzo[g,h,i]perylene	5400	7100		20
207-08-9	Benzo[k]fluoranthene	6300	7100		20
100-51-6	Benzyl Alcohol	9300	8900	5	2.0
111-91-1	Bis(2-chloroethoxy)methane	5400	710		2.0
111-44-4	Bis(2-chloroethyl)ether	4900	360		2.0
108-60-1	Bis(2-chloroisopropyl)ether	4900	360		2.0

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Sample Number: AB07415 SB-03 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	6100	890		2.0
85-68-7	Butyl benzyl phthalate	6300	890		2.0
86-74-8	Carbazole	5900	890		2.0
218-01-9	Chrysene	7700	360		2.0
53-70-3	Dibenz[a,h]anthracene	5100	7100		20
132-64-9	Dibenzofuran	5500	890		2.0
84-66-2	Diethylphthalate	5800	890		2.0
131-11-3	Dimethyl phthalate	5700	890		2.0
84-74-2	Di-n-butyl phthalate	5800	890		2.0
117-84-0	Di-n-octyl phthalate	5200	890		2.0
206-44-0	Fluoranthene	9800	360		2.0
86-73-7	Fluorene	5700	360		2.0
118-74-1	Hexachlorobenzene	6400	710		2.0
87-68-3	Hexachlorobutadiene	5500	360	Z	2.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	3600	3Z	2.0
67-72-1	Hexachloroethane	4600	360		2.0
193-39-5	Indeno(1,2,3-c,d)pyrene	5400	7100		20
78-59-1	Isophorone	4900	360		2.0
91-20-3	Naphthalene	5800	360		2.0
98-95-3	Nitrobenzene	5300	710		2.0
62-75-9	N-Nitrosodimethylamine	3500	890		2.0
621-64-7	N-Nitrosodi-n-propylamine	4400	710		2.0
86-30-6	N-Nitrosodiphenylamine	6300	710		2.0
87-86-5	Pentachlorophenol	8400	6100	Z=800	2.0
85-01-8	Phenanthrene	9300	360		2.0
108-95-2	Phenol	9800	1200		2.0
129-00-0	Pyrene	11000	360		2.0

Sample is a matrix spike.
Phenol compounds are spiked at 8000 ug/Kg wet weight.
Base Neutral compounds are spiked at 4000 ug/Kg wet weight.
RLs raised due to matrix interference.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample **AB07415** **SB-03 MS**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	4.4	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction -	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed			N	11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	4.5	mg/Kg dry	0.05	N	11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	41	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	110	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	200	mg/Kg dry	1	3	11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	100	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	11	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	100	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	87	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	160	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	43000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	390	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	380	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	95	mg/Kg dry	1	3	11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	85	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	10	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	92	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	680	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	56.0	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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Sample Number: AB07416 SB-03 MSD

Pesticides and PCBs

Analytical Method: 8081,8082 Date Tested: 11/23/2007 Analyst: MF
Extraction Method: 3545 Extraction Date: 11/16/2007 Qualifier:

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	63.4			
SURROGATE	#Tetrachloro-m-xylene#	81.4			
72-54-8	4,4'-DDD	140	36		1.0
72-55-9	4,4'-DDE	120	36		1.0
50-29-3	4,4'-DDT	110	36	5	1.0
319-84-6	a-BHC	140	18		1.0
5103-71-9	a-Chlordane	120	36		1.0
309-00-2	Aldrin	150	36		1.0
12674-11-2	Aroclor 1016	Not Detected	180		1.0
11104-28-2	Aroclor 1221	Not Detected	180		1.0
11141-16-5	Aroclor 1232	Not Detected	180		1.0
53469-21-9	Aroclor 1242	Not Detected	180		1.0
12672-29-6	Aroclor 1248	Not Detected	180		1.0
11097-69-1	Aroclor 1254	Not Detected	180		1.0
11096-82-5	Aroclor 1260	Not Detected	180		1.0
37324-23-5	Aroclor 1262	Not Detected	180		1.0
11100-14-4	Aroclor 1268	Not Detected	180		1.0
319-85-7	b-BHC	150	36		1.0
319-86-8	d-BHC	150	36		1.0
60-57-1	Dieldrin	130	36		1.0
959-98-8	Endosulfan I	130	36		1.0
33213-65-9	Endosulfan II	130	36		1.0
1031-07-8	Endosulfan sulfate	140	36		1.0
72-20-8	Endrin	130	36		1.0
7421-93-4	Endrin aldehyde	100	36		1.0
53494-70-5	Endrin ketone	130	36		1.0
58-89-9	g-BHC (Lindane)	140	36		1.0
5103-74-2	g-Chlordane	130	36		1.0
76-44-8	Heptachlor	140	36		1.0
1024-57-3	Heptachlor epoxide	130	36		1.0
87-82-1	Hexabromobenzene	110	180	T	1.0
72-43-5	Methoxychlor	120	89	5	1.0
2385-85-5	Mirex	120	89		1.0
59080-40-9	PBB (BP-6)	110	450	T	1.0
8001-35-2	Toxaphene	Not Detected	300		1.0

Sample is a matrix spike.
Pesticides are spiked at 100 ug/Kg wet weight.

CAS# : Chemical Abstract Service Registry Number
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ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07416 SB-03 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	73.7			
SURROGATE	#2,4,6-Tribromophenol#	93.5			
SURROGATE	#2-Fluorophenol#	63.2			
SURROGATE	#Nitrobenzene - D5#	70.4			
SURROGATE	#Phenol - D6#	68.0			
SURROGATE	#p-Terphenyl-d14#	102			
120-82-1	1,2,4-Trichlorobenzene	5100	710		2.0
95-95-4	2,4,5-Trichlorophenol	11000	1200		2.0
88-06-2	2,4,6-Trichlorophenol	11000	1200		2.0
120-83-2	2,4-Dichlorophenol	11000	1200		2.0
105-67-9	2,4-Dimethylphenol	12000	1200		2.0
51-28-5	2,4-Dinitrophenol	6600	6100	Z	2.0
121-14-2	2,4-Dinitrotoluene	5500	890		2.0
606-20-2	2,6-Dinitrotoluene	5600	890		2.0
91-58-7	2-Chloronaphthalene	5400	710		2.0
95-57-8	2-Chlorophenol	9700	1200		2.0
534-52-1	2-Methyl-4,6-dinitrophenol	9600	6100	Z	2.0
91-57-6	2-Methylnaphthalene	5400	890		2.0
95-48-7	2-Methylphenol (o-Cresol)	9900	1200		2.0
88-74-4	2-Nitroaniline	5500	1800		2.0
88-75-5	2-Nitrophenol	10000	1200		2.0
108394,106445	3 & 4-Methylphenol	10000	2400		2.0
99-09-2	3-Nitroaniline	1900	1800		2.0
101-55-3	4-Bromophenyl phenyl ether	6800	710		2.0
59-50-7	4-Chloro-3-methyl-phenol	11000	710		2.0
7005-72-3	4-Chlorodiphenylether	6000	360		2.0
100-01-6	4-Nitroaniline	2600	1800		2.0
100-02-7	4-Nitrophenol	10000	6100	Z	2.0
83-32-9	Acenaphthene	6100	360		2.0
208-96-8	Acenaphthylene	6000	360		2.0
120-12-7	Anthracene	7900	360		2.0
103-33-3	Azobenzene	5700	710		2.0
56-55-3	Benzo[a]anthracene	8800	360		2.0
50-32-8	Benzo[a]pyrene	7400	7100		20
205-99-2	Benzo[b]fluoranthene	7200	7100		20
191-24-2	Benzo[g,h,i]perylene	6200	7100		20
207-08-9	Benzo[k]fluoranthene	6300	7100		20
100-51-6	Benzyl Alcohol	8200	8900	5,T	2.0
111-91-1	Bis(2-chloroethoxy)methane	5100	710		2.0
111-44-4	Bis(2-chloroethyl)ether	4500	360		2.0
108-60-1	Bis(2-chloroisopropyl)ether	4500	360		2.0

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Sample Number: AB07416 SB-03 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:** KW

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	6300	890		2.0
85-68-7	Butyl benzyl phthalate	6300	890		2.0
86-74-8	Carbazole	6400	890		2.0
218-01-9	Chrysene	9000	360		2.0
53-70-3	Dibenz[a,h]anthracene	5500	7100		20
132-64-9	Dibenzofuran	5700	890		2.0
84-66-2	Diethylphthalate	5900	890		2.0
131-11-3	Dimethyl phthalate	5600	890		2.0
84-74-2	Di-n-butyl phthalate	6100	890		2.0
117-84-0	Di-n-octyl phthalate	5400	890		2.0
206-44-0	Fluoranthene	14000	360		2.0
86-73-7	Fluorene	6100	360		2.0
118-74-1	Hexachlorobenzene	6500	710		2.0
87-68-3	Hexachlorobutadiene	5300	360	Z	2.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	3600	3Z	2.0
67-72-1	Hexachloroethane	4100	360		2.0
193-39-5	Indeno(1,2,3-c,d)pyrene	5900	7100		20
78-59-1	Isophorone	4600	360		2.0
91-20-3	Naphthalene	5500	360		2.0
98-95-3	Nitrobenzene	5000	710		2.0
62-75-9	N-Nitrosodimethylamine	3300	890		2.0
621-64-7	N-Nitrosodi-n-propylamine	4100	710		2.0
86-30-6	N-Nitrosodiphenylamine	6700	710		2.0
87-86-5	Pentachlorophenol	8800	6100	Z=800	2.0
85-01-8	Phenanthrene	13000	360		2.0
108-95-2	Phenol	9200	1200		2.0
129-00-0	Pyrene	14000	360		2.0

Sample is a matrix spike.
Phenol compounds are spiked at 8000 ug/Kg wet weight.
Base Neutral compounds are spiked at 4000 ug/Kg wet weight.
RLs raised due to matrix interference.

CAS# : Chemical Abstract Service Registry Number
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Sample **AB07416** **SB-03 MSD**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	4.5	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed			N	11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	2.7	mg/Kg dry	0.05	N	11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	42	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	110	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	210	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	99	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	12	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	99	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	86	mg/Kg dry	.5	3	11/30/2007	6020	KS
7440-50-8	Copper - Sediment	170	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	40000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	410	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	440	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	95	mg/Kg dry	1	3	11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	85	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	10	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	92	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	680	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	56.0	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07417 SB-04

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	90.1			
SURROGATE	#Tetrachloro-m-xylene#	81.5			
72-54-8	4,4'-DDD	Not Detected	26	7	1.0
72-55-9	4,4'-DDE	Not Detected	26		1.0
50-29-3	4,4'-DDT	Not Detected	26		1.0
319-84-6	a-BHC	Not Detected	13		1.0
5103-71-9	a-Chlordane	Not Detected	26		1.0
309-00-2	Aldrin	Not Detected	26		1.0
12674-11-2	Aroclor 1016	Not Detected	130		1.0
11104-28-2	Aroclor 1221	Not Detected	130		1.0
11141-16-5	Aroclor 1232	Not Detected	130		1.0
53469-21-9	Aroclor 1242	Not Detected	130		1.0
12672-29-6	Aroclor 1248	Not Detected	130		1.0
11097-69-1	Aroclor 1254	Not Detected	130		1.0
11096-82-5	Aroclor 1260	Not Detected	130		1.0
37324-23-5	Aroclor 1262	Not Detected	130		1.0
11100-14-4	Aroclor 1268	Not Detected	130		1.0
319-85-7	b-BHC	Not Detected	26		1.0
319-86-8	d-BHC	Not Detected	26		1.0
60-57-1	Dieldrin	Not Detected	26		1.0
959-98-8	Endosulfan I	Not Detected	26		1.0
33213-65-9	Endosulfan II	Not Detected	26		1.0
1031-07-8	Endosulfan sulfate	Not Detected	26		1.0
72-20-8	Endrin	Not Detected	26		1.0
7421-93-4	Endrin aldehyde	Not Detected	26		1.0
53494-70-5	Endrin ketone	Not Detected	26		1.0
58-89-9	g-BHC (Lindane)	Not Detected	26		1.0
5103-74-2	g-Chlordane	Not Detected	26		1.0
76-44-8	Heptachlor	Not Detected	26		1.0
1024-57-3	Heptachlor epoxide	Not Detected	26		1.0
87-82-1	Hexabromobenzene	Not Detected	130		1.0
72-43-5	Methoxychlor	Not Detected	65		1.0
2385-85-5	Mirex	Not Detected	65		1.0
59080-40-9	PBB (BP-6)	Not Detected	320		1.0
8001-35-2	Toxaphene	Not Detected	220		1.0

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Sample Number: AB07417 SB-04

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	72.1			
SURROGATE	#2,4,6-Tribromophenol#	70.4			
SURROGATE	#2-Fluorophenol#	67.9			
SURROGATE	#Nitrobenzene - D5#	70.0			
SURROGATE	#Phenol - D6#	75.2			
SURROGATE	#p-Terphenyl-d14#	78.3			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	260		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	430		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	430		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	430		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	430		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2200	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	320		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	320		1.0
91-58-7	2-Chloronaphthalene	Not Detected	260		1.0
95-57-8	2-Chlorophenol	Not Detected	430		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2200	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	320		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	430		1.0
88-74-4	2-Nitroaniline	Not Detected	650		1.0
88-75-5	2-Nitrophenol	Not Detected	430		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	850		1.0
99-09-2	3-Nitroaniline	Not Detected	650		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	260		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	260		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	130		1.0
100-01-6	4-Nitroaniline	Not Detected	650		1.0
100-02-7	4-Nitrophenol	Not Detected	2200	Z	1.0
83-32-9	Acenaphthene	Not Detected	130		1.0
208-96-8	Acenaphthylene	Not Detected	130		1.0
120-12-7	Anthracene	Not Detected	130		1.0
103-33-3	Azobenzene	Not Detected	260		1.0
56-55-3	Benzo[a]anthracene	Not Detected	130		1.0
50-32-8	Benzo[a]pyrene	Not Detected	260		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	260		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	260		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	260		1.0
100-51-6	Benzyl Alcohol	Not Detected	3200		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	260		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	130		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	130		1.0

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Sample Number: AB07417 SB-04

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	320		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	320		1.0
86-74-8	Carbazole	Not Detected	320		1.0
218-01-9	Chrysene	Not Detected	130		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	260		1.0
132-64-9	Dibenzofuran	Not Detected	320		1.0
84-66-2	Diethylphthalate	Not Detected	320		1.0
131-11-3	Dimethyl phthalate	Not Detected	320		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	320		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	320		1.0
206-44-0	Fluoranthene	Not Detected	130		1.0
86-73-7	Fluorene	Not Detected	130		1.0
118-74-1	Hexachlorobenzene	Not Detected	260		1.0
87-68-3	Hexachlorobutadiene	Not Detected	130	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1300	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	130		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	260		1.0
78-59-1	Isophorone	Not Detected	130		1.0
91-20-3	Naphthalene	Not Detected	130		1.0
98-95-3	Nitrobenzene	Not Detected	260		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	320		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	260		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	260		1.0
87-86-5	Pentachlorophenol	Not Detected	2200	Z=800	1.0
85-01-8	Phenanthrene	Not Detected	130		1.0
108-95-2	Phenol	Not Detected	430		1.0
129-00-0	Pyrene	Not Detected	130		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.43			
SURROGATE	#Bromofluorobenzene#	123			
SURROGATE	#Dibromofluoromethane#	135			
SURROGATE	#Toluene-d8#	127			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	83		50
71-55-6	1,1,1-Trichloroethane	Not Detected	83		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	83		50

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Sample Number: AB07417 SB-04

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	83		50
75-34-3	1,1-Dichloroethane	Not Detected	83		50
75-35-4	1,1-Dichloroethylene	Not Detected	83		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	420		50
96-18-4	1,2,3-Trichloropropane	Not Detected	83		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	83		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	420		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	83		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	420		50
106-93-4	1,2-Dibromoethane	Not Detected	83	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	83		50
107-06-2	1,2-Dichloroethane	Not Detected	83		50
78-87-5	1,2-Dichloropropane	Not Detected	83		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	83		50
541-73-1	1,3-Dichlorobenzene	Not Detected	83		50
106-46-7	1,4-Dichlorobenzene	Not Detected	83		50
78-93-3	2-Butanone (MEK)	Not Detected	420		50
591-78-6	2-Hexanone	Not Detected	420		50
91-57-6	2-Methylnaphthalene	Not Detected	420	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1700		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	420		50
107-13-1	Acrylonitrile	Not Detected	420	Z	50
71-43-2	Benzene	Not Detected	83		50
108-86-1	Bromobenzene	Not Detected	83		50
74-97-5	Bromochloromethane	Not Detected	83		50
75-27-4	Bromodichloromethane	Not Detected	83		50
75-25-2	Bromoform	Not Detected	83		50
74-83-9	Bromomethane	Not Detected	330		50
75-15-0	Carbon disulfide	Not Detected	83		50
56-23-5	Carbon tetrachloride	Not Detected	83		50
108-90-7	Chlorobenzene	Not Detected	83		50
75-00-3	Chloroethane	Not Detected	420		50
67-66-3	Chloroform	Not Detected	83		50
74-87-3	Chloromethane	Not Detected	420		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	83		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	83		50
110-82-7	Cyclohexane	Not Detected	420		50
124-48-1	Dibromochloromethane	Not Detected	83		50
74-95-3	Dibromomethane	Not Detected	83		50
75-71-8	Dichlorodifluoromethane	Not Detected	420		50
60-29-7	Diethyl ether	Not Detected	330		50

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Sample Number: AB07417 SB-04

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	420		50
100-41-4	Ethylbenzene	Not Detected	83		50
637-92-3	Ethyltertiarybutylether	Not Detected	420		50
67-72-1	Hexachloroethane	Not Detected	420		50
98-82-8	Isopropylbenzene	Not Detected	83		50
108383;106423	m-&p-Xylene	Not Detected	170		50
74-88-4	Methyl iodide	Not Detected	83		50
75-09-2	Methylene chloride	Not Detected	170		50
1634-04-4	Methyltertiarybutylether	Not Detected	83		50
91-20-3	Naphthalene	Not Detected	420	X	50
104-51-8	n-Butylbenzene	Not Detected	83		50
103-65-1	n-Propylbenzene	Not Detected	83		50
95-47-6	o-Xylene	Not Detected	83		50
99-87-6	p-Isopropyl toluene	Not Detected	83		50
135-98-8	sec-Butylbenzene	Not Detected	83		50
100-42-5	Styrene	Not Detected	83		50
98-06-6	tert-Butylbenzene	Not Detected	83		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4200		50
994-05-8	tertiaryAmylmethylether	Not Detected	420		50
127-18-4	Tetrachloroethylene	Not Detected	83		50
109-99-9	Tetrahydrofuran	Not Detected	420		50
108-88-3	Toluene	Not Detected	83		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	83		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	83		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	420	Z	50
79-01-6	Trichloroethylene	Not Detected	83		50
75-69-4	Trichlorofluoromethane	Not Detected	83		50
75-01-4	Vinyl chloride	Not Detected	83	Z	50

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Sample **AB07417** **SB-04**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	3.6	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	33	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.23	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	7.7	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	3.7	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	4.3	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	10000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	3.8	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	250	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	8.8	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.21	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	8.9	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	20	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	77.3	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07418 SB-05

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	81.5			
SURROGATE	#Tetrachloro-m-xylene#	82.5			
72-54-8	4,4'-DDD	Not Detected	28	7	1.0
72-55-9	4,4'-DDE	Not Detected	28		1.0
50-29-3	4,4'-DDT	Not Detected	28		1.0
319-84-6	a-BHC	Not Detected	14		1.0
5103-71-9	a-Chlordane	Not Detected	28		1.0
309-00-2	Aldrin	Not Detected	28		1.0
12674-11-2	Aroclor 1016	Not Detected	140		1.0
11104-28-2	Aroclor 1221	Not Detected	140		1.0
11141-16-5	Aroclor 1232	Not Detected	140		1.0
53469-21-9	Aroclor 1242	Not Detected	140		1.0
12672-29-6	Aroclor 1248	Not Detected	140		1.0
11097-69-1	Aroclor 1254	Not Detected	140		1.0
11096-82-5	Aroclor 1260	Not Detected	140		1.0
37324-23-5	Aroclor 1262	Not Detected	140		1.0
11100-14-4	Aroclor 1268	Not Detected	140		1.0
319-85-7	b-BHC	Not Detected	28		1.0
319-86-8	d-BHC	Not Detected	28		1.0
60-57-1	Dieldrin	Not Detected	28		1.0
959-98-8	Endosulfan I	Not Detected	28		1.0
33213-65-9	Endosulfan II	Not Detected	28		1.0
1031-07-8	Endosulfan sulfate	Not Detected	28		1.0
72-20-8	Endrin	Not Detected	28		1.0
7421-93-4	Endrin aldehyde	Not Detected	28		1.0
53494-70-5	Endrin ketone	Not Detected	28		1.0
58-89-9	g-BHC (Lindane)	Not Detected	28		1.0
5103-74-2	g-Chlordane	Not Detected	28		1.0
76-44-8	Heptachlor	Not Detected	28		1.0
1024-57-3	Heptachlor epoxide	Not Detected	28		1.0
87-82-1	Hexabromobenzene	Not Detected	140		1.0
72-43-5	Methoxychlor	Not Detected	70		1.0
2385-85-5	Mirex	Not Detected	70		1.0
59080-40-9	PBB (BP-6)	Not Detected	350		1.0
8001-35-2	Toxaphene	Not Detected	240		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07418 SB-05

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	80.6			
SURROGATE	#2,4,6-Tribromophenol#	72.6			
SURROGATE	#2-Fluorophenol#	69.2			
SURROGATE	#Nitrobenzene - D5#	68.8			
SURROGATE	#Phenol - D6#	76.3			
SURROGATE	#p-Terphenyl-d14#	99.6			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	280		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	460		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	460		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	460		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	460		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2400	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	350		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	350		1.0
91-58-7	2-Chloronaphthalene	Not Detected	280		1.0
95-57-8	2-Chlorophenol	Not Detected	460		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2400	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	350		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	460		1.0
88-74-4	2-Nitroaniline	Not Detected	700		1.0
88-75-5	2-Nitrophenol	Not Detected	460		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	920		1.0
99-09-2	3-Nitroaniline	Not Detected	700		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	280		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	280		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	140		1.0
100-01-6	4-Nitroaniline	Not Detected	700		1.0
100-02-7	4-Nitrophenol	Not Detected	2400	Z	1.0
83-32-9	Acenaphthene	Not Detected	140		1.0
208-96-8	Acenaphthylene	170	140		1.0
120-12-7	Anthracene	1500	140		1.0
103-33-3	Azobenzene	Not Detected	280		1.0
56-55-3	Benzo[a]anthracene	3400	140		1.0
50-32-8	Benzo[a]pyrene	3300	280		1.0
205-99-2	Benzo[b]fluoranthene	4100	280		1.0
191-24-2	Benzo[g,h,i]perylene	1600	280		1.0
207-08-9	Benzo[k]fluoranthene	1500	280		1.0
100-51-6	Benzyl Alcohol	Not Detected	3500		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	280		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	140		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	140		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07418 SB-05

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	350		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	350		1.0
86-74-8	Carbazole	Not Detected	350		1.0
218-01-9	Chrysene	3600	140		1.0
53-70-3	Dibenz[a,h]anthracene	550	280		1.0
132-64-9	Dibenzofuran	Not Detected	350		1.0
84-66-2	Diethylphthalate	Not Detected	350		1.0
131-11-3	Dimethyl phthalate	Not Detected	350		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	350		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	350		1.0
206-44-0	Fluoranthene	7200	140		1.0
86-73-7	Fluorene	350	140		1.0
118-74-1	Hexachlorobenzene	Not Detected	280		1.0
87-68-3	Hexachlorobutadiene	Not Detected	140	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1400	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	140		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	1600	280		1.0
78-59-1	Isophorone	Not Detected	140		1.0
91-20-3	Naphthalene	600	140		1.0
98-95-3	Nitrobenzene	Not Detected	280		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	350		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	280		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	280		1.0
87-86-5	Pentachlorophenol	Not Detected	2400	Z=800	1.0
85-01-8	Phenanthrene	3400	140		1.0
108-95-2	Phenol	Not Detected	460		1.0
129-00-0	Pyrene	6800	140		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.42			
SURROGATE	#Bromofluorobenzene#	125			
SURROGATE	#Dibromofluoromethane#	141			
SURROGATE	#Toluene-d8#	130			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	86		50
71-55-6	1,1,1-Trichloroethane	Not Detected	86		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	86		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07418 SB-05

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	86		50
75-34-3	1,1-Dichloroethane	Not Detected	86		50
75-35-4	1,1-Dichloroethylene	Not Detected	86		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	430		50
96-18-4	1,2,3-Trichloropropane	Not Detected	86		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	86		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	430		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	86		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	430		50
106-93-4	1,2-Dibromoethane	Not Detected	86	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	86		50
107-06-2	1,2-Dichloroethane	Not Detected	86		50
78-87-5	1,2-Dichloropropane	Not Detected	86		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	86		50
541-73-1	1,3-Dichlorobenzene	Not Detected	86		50
106-46-7	1,4-Dichlorobenzene	Not Detected	86		50
78-93-3	2-Butanone (MEK)	Not Detected	430		50
591-78-6	2-Hexanone	Not Detected	430		50
91-57-6	2-Methylnaphthalene	Not Detected	430	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1700		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	430		50
107-13-1	Acrylonitrile	Not Detected	430	Z	50
71-43-2	Benzene	Not Detected	86		50
108-86-1	Bromobenzene	Not Detected	86		50
74-97-5	Bromochloromethane	Not Detected	86		50
75-27-4	Bromodichloromethane	Not Detected	86		50
75-25-2	Bromoform	Not Detected	86		50
74-83-9	Bromomethane	Not Detected	350		50
75-15-0	Carbon disulfide	Not Detected	86		50
56-23-5	Carbon tetrachloride	Not Detected	86		50
108-90-7	Chlorobenzene	Not Detected	86		50
75-00-3	Chloroethane	Not Detected	430		50
67-66-3	Chloroform	Not Detected	86		50
74-87-3	Chloromethane	Not Detected	430		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	86		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	86		50
110-82-7	Cyclohexane	Not Detected	430		50
124-48-1	Dibromochloromethane	Not Detected	86		50
74-95-3	Dibromomethane	Not Detected	86		50
75-71-8	Dichlorodifluoromethane	Not Detected	430		50
60-29-7	Diethyl ether	Not Detected	350		50

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Sample Number: AB07418 SB-05

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	430		50
100-41-4	Ethylbenzene	Not Detected	86		50
637-92-3	Ethyltertiarybutylether	Not Detected	430		50
67-72-1	Hexachloroethane	Not Detected	430		50
98-82-8	Isopropylbenzene	Not Detected	86		50
108383,106423	m & p - Xylene	Not Detected	170		50
74-88-4	Methyl Iodide	Not Detected	86		50
75-09-2	Methylene chloride	Not Detected	170		50
1634-04-4	Methyltertiarybutylether	Not Detected	86		50
91-20-3	Naphthalene	Not Detected	430	X	50
104-51-8	n-Butylbenzene	Not Detected	86		50
103-65-1	n-Propylbenzene	Not Detected	86		50
95-47-6	o-Xylene	Not Detected	86		50
99-87-6	p-Isopropyl toluene	Not Detected	86		50
135-98-8	sec-Butylbenzene	Not Detected	86		50
100-42-5	Styrene	Not Detected	86		50
98-06-6	tert-Butylbenzene	Not Detected	86		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4300		50
994-05-8	tertiaryAmylmethylether	Not Detected	430		50
127-18-4	Tetrachloroethylene	Not Detected	86		50
109-99-9	Tetrahydrofuran	Not Detected	430		50
108-88-3	Toluene	Not Detected	86		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	86		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	86		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	430	Z	50
79-01-6	Trichloroethylene	Not Detected	86		50
75-69-4	Trichlorofluoromethane	Not Detected	86		50
75-01-4	Vinyl chloride	Not Detected	86	Z	50

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Sample **AB07418** **SB-05**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	3.3	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	2.5	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	8.0	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	23	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	360	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	1.7	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	3.7	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	18	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	6.3	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	60	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	92000	mg/Kg dry	500	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	1300	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	340	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	3.3	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	20	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	1.1	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.59	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	20	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	1300	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	71.9	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07419 SB-06

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	93.9			
SURROGATE	#Tetrachloro-m-xylene#	86.9			
72-54-8	4,4'-DDD	Not Detected	26	7	1.0
72-55-9	4,4'-DDE	Not Detected	26		1.0
50-29-3	4,4'-DDT	Not Detected	26		1.0
319-84-6	a-BHC	Not Detected	13		1.0
5103-71-9	a-Chlordane	Not Detected	26		1.0
309-00-2	Aldrin	Not Detected	26		1.0
12674-11-2	Aroclor 1016	Not Detected	130		1.0
11104-28-2	Aroclor 1221	Not Detected	130		1.0
11141-16-5	Aroclor 1232	Not Detected	130		1.0
53469-21-9	Aroclor 1242	Not Detected	130		1.0
12672-29-6	Aroclor 1248	Not Detected	130		1.0
11097-69-1	Aroclor 1254	Not Detected	130		1.0
11096-82-5	Aroclor 1260	Not Detected	130		1.0
37324-23-5	Aroclor 1262	Not Detected	130		1.0
11100-14-4	Aroclor 1268	Not Detected	130		1.0
319-85-7	b-BHC	Not Detected	26		1.0
319-86-8	d-BHC	Not Detected	26		1.0
60-57-1	Dieldrin	Not Detected	26		1.0
959-98-8	Endosulfan I	Not Detected	26		1.0
33213-65-9	Endosulfan II	Not Detected	26		1.0
1031-07-8	Endosulfan sulfate	Not Detected	26		1.0
72-20-8	Endrin	Not Detected	26		1.0
7421-93-4	Endrin aldehyde	Not Detected	26		1.0
53494-70-5	Endrin ketone	Not Detected	26		1.0
58-89-9	g-BHC (Lindane)	Not Detected	26		1.0
5103-74-2	g-Chlordane	Not Detected	26		1.0
76-44-8	Heptachlor	Not Detected	26		1.0
1024-57-3	Heptachlor epoxide	Not Detected	26		1.0
87-82-1	Hexabromobenzene	Not Detected	130		1.0
72-43-5	Methoxychlor	Not Detected	65		1.0
2385-85-5	Mirex	Not Detected	65		1.0
59080-40-9	PBB (BP-6)	Not Detected	330		1.0
8001-35-2	Toxaphene	Not Detected	220		1.0

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ug / Kg : microgram / kilogram (ppb)
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB07419 SB-06

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	75.4			
SURROGATE	#2,4,6-Tribromophenol#	71.8			
SURROGATE	#2-Fluorophenol#	65.9			
SURROGATE	#Nitrobenzene - D5#	68.9			
SURROGATE	#Phenol - D6#	73.9			
SURROGATE	#p-Terphenyl-d14#	82.2			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	260		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	430		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	430		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	430		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	430		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2200	5Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	330		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	330		1.0
91-58-7	2-Chloronaphthalene	Not Detected	260		1.0
95-57-8	2-Chlorophenol	Not Detected	430		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2200	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	330		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	430		1.0
88-74-4	2-Nitroaniline	Not Detected	650		1.0
88-75-5	2-Nitrophenol	Not Detected	430		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	860		1.0
99-09-2	3-Nitroaniline	Not Detected	650		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	260		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	260		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	130		1.0
100-01-6	4-Nitroaniline	Not Detected	650		1.0
100-02-7	4-Nitrophenol	Not Detected	2200	Z	1.0
83-32-9	Acenaphthene	Not Detected	130		1.0
208-96-8	Acenaphthylene	Not Detected	130		1.0
120-12-7	Anthracene	Not Detected	130		1.0
103-33-3	Azobenzene	Not Detected	260		1.0
56-55-3	Benzo[a]anthracene	Not Detected	130		1.0
50-32-8	Benzo[a]pyrene	Not Detected	260		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	260		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	260		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	260		1.0
100-51-6	Benzyl Alcohol	Not Detected	3300		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	260		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	130		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	130		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07419 SB-06

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	330		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	330		1.0
86-74-8	Carbazole	Not Detected	330		1.0
218-01-9	Chrysene	Not Detected	130		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	260		1.0
132-64-9	Dibenzofuran	Not Detected	330		1.0
84-66-2	Diethylphthalate	Not Detected	330		1.0
131-11-3	Dimethyl phthalate	Not Detected	330		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	330		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	330		1.0
206-44-0	Fluoranthene	Not Detected	130		1.0
86-73-7	Fluorene	Not Detected	130		1.0
118-74-1	Hexachlorobenzene	Not Detected	260		1.0
87-68-3	Hexachlorobutadiene	Not Detected	130	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1300	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	130		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	260		1.0
78-59-1	Isophorone	Not Detected	130		1.0
91-20-3	Naphthalene	Not Detected	130		1.0
98-95-3	Nitrobenzene	Not Detected	260		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	330		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	260		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	260		1.0
87-86-5	Pentachlorophenol	Not Detected	2200	Z=800	1.0
85-01-8	Phenanthrene	Not Detected	130		1.0
108-95-2	Phenol	Not Detected	430		1.0
129-00-0	Pyrene	Not Detected	130		1.0

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	11.68			
SURROGATE	#Bromofluorobenzene#	130			
SURROGATE	#Dibromofluoromethane#	139			
SURROGATE	#Toluene-d8#	134			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	83		50
71-55-6	1,1,1-Trichloroethane	Not Detected	83		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	83		50

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ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07419 SB-06

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	83		50
75-34-3	1,1-Dichloroethane	Not Detected	83		50
75-35-4	1,1-Dichloroethylene	Not Detected	83		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	410		50
96-18-4	1,2,3-Trichloropropane	Not Detected	83		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	83		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	410		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	83		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	410		50
106-93-4	1,2-Dibromoethane	Not Detected	83	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	83		50
107-06-2	1,2-Dichloroethane	Not Detected	83		50
78-87-5	1,2-Dichloropropane	Not Detected	83		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	83		50
541-73-1	1,3-Dichlorobenzene	Not Detected	83		50
106-46-7	1,4-Dichlorobenzene	Not Detected	83		50
78-93-3	2-Butanone (MEK)	Not Detected	410		50
591-78-6	2-Hexanone	Not Detected	410		50
91-57-6	2-Methylnaphthalene	Not Detected	410	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1700		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	410		50
107-13-1	Acrylonitrile	Not Detected	410	Z	50
71-43-2	Benzene	Not Detected	83		50
108-86-1	Bromobenzene	Not Detected	83		50
74-97-5	Bromochloromethane	Not Detected	83		50
75-27-4	Bromodichloromethane	Not Detected	83		50
75-25-2	Bromoform	Not Detected	83		50
74-83-9	Bromomethane	Not Detected	330		50
75-15-0	Carbon disulfide	Not Detected	83		50
56-23-5	Carbon tetrachloride	Not Detected	83		50
108-90-7	Chlorobenzene	Not Detected	83		50
75-00-3	Chloroethane	Not Detected	410		50
67-66-3	Chloroform	Not Detected	83		50
74-87-3	Chloromethane	Not Detected	410		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	83		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	83		50
110-82-7	Cyclohexane	Not Detected	410		50
124-48-1	Dibromochloromethane	Not Detected	83		50
74-95-3	Dibromomethane	Not Detected	83		50
75-71-8	Dichlorodifluoromethane	Not Detected	410		50
60-29-7	Diethyl ether	Not Detected	330		50

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Sample Number: AB07419 SB-06

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	410		50
100-41-4	Ethylbenzene	Not Detected	83		50
637-92-3	Ethyltertiarybutylether	Not Detected	410		50
67-72-1	Hexachloroethane	Not Detected	410		50
98-82-8	Isopropylbenzene	Not Detected	83		50
108383-106423	m & p - Xylene	Not Detected	170		50
74-88-4	Methyl iodide	Not Detected	83		50
75-09-2	Methylene chloride	Not Detected	170		50
1634-04-4	Methyltertiarybutylether	Not Detected	83		50
91-20-3	Naphthalene	Not Detected	410	X	50
104-51-8	n-Butylbenzene	Not Detected	83		50
103-65-1	n-Propylbenzene	Not Detected	83		50
95-47-6	o-Xylene	Not Detected	83		50
99-87-6	p-Isopropyl toluene	Not Detected	83		50
135-98-8	sec-Butylbenzene	Not Detected	83		50
100-42-5	Styrene	Not Detected	83		50
98-06-6	tert-Butylbenzene	Not Detected	83		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4100		50
994-05-8	tertiaryAmylmethylether	Not Detected	410		50
127-18-4	Tetrachloroethylene	Not Detected	83		50
109-99-9	Tetrahydrofuran	Not Detected	410		50
108-88-3	Toluene	Not Detected	83		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	83		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	83		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	410	Z	50
79-01-6	Trichloroethylene	Not Detected	83		50
75-69-4	Trichlorofluoromethane	Not Detected	83		50
75-01-4	Vinyl chloride	Not Detected	83	Z	50

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Sample **AB07419** **SB-06**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	2.7	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	27	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	7.5	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	4.1	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	4.9	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	7400	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	9.7	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	240	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	8.3	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.27	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	8.6	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	24	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	76.4	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/14/2007	3640	DT

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Sample Number: AB07420 SB-07

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	82.8			
SURROGATE	#Tetrachloro-m-xylene#	84.7			
72-54-8	4,4'-DDD	Not Detected	26	7	1.0
72-55-9	4,4'-DDE	Not Detected	26		1.0
50-29-3	4,4'-DDT	Not Detected	26		1.0
319-84-6	a-BHC	Not Detected	13		1.0
5103-71-9	a-Chlordane	Not Detected	26		1.0
309-00-2	Aldrin	Not Detected	26		1.0
12674-11-2	Aroclor 1016	Not Detected	130		1.0
11104-28-2	Aroclor 1221	Not Detected	130		1.0
11141-16-5	Aroclor 1232	Not Detected	130		1.0
53469-21-9	Aroclor 1242	Not Detected	130		1.0
12672-29-6	Aroclor 1248	Not Detected	130		1.0
11097-69-1	Aroclor 1254	Not Detected	130		1.0
11096-82-5	Aroclor 1260	Not Detected	130		1.0
37324-23-5	Aroclor 1262	Not Detected	130		1.0
11100-14-4	Aroclor 1268	Not Detected	130		1.0
319-85-7	b-BHC	Not Detected	26		1.0
319-86-8	d-BHC	Not Detected	26		1.0
60-57-1	Dieldrin	Not Detected	26		1.0
959-98-8	Endosulfan I	Not Detected	26		1.0
33213-65-9	Endosulfan II	Not Detected	26		1.0
1031-07-8	Endosulfan sulfate	Not Detected	26		1.0
72-20-8	Endrin	Not Detected	26		1.0
7421-93-4	Endrin aldehyde	Not Detected	26		1.0
53494-70-5	Endrin ketone	Not Detected	26		1.0
58-89-9	g-BHC (Lindane)	Not Detected	26		1.0
5103-74-2	g-Chlordane	Not Detected	26		1.0
76-44-8	Heptachlor	Not Detected	26		1.0
1024-57-3	Heptachlor epoxide	Not Detected	26		1.0
87-82-1	Hexabromobenzene	Not Detected	130		1.0
72-43-5	Methoxychlor	Not Detected	66		1.0
2385-85-5	Mirex	Not Detected	66		1.0
59080-40-9	PBB (BP-6)	Not Detected	330		1.0
8001-35-2	Toxaphene	Not Detected	220		1.0

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Sample Number: AB07420 SB-07

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	76.8			
SURROGATE	#2,4,6-Tribromophenol#	91.4			
SURROGATE	#2-Fluorophenol#	69.2			
SURROGATE	#Nitrobenzene - D5#	75.2			
SURROGATE	#Phenol - D6#	75.9			
SURROGATE	#p-Terphenyl-d14#	84.5			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	260		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	430		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	430		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	430		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	430		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2200	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	330		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	330		1.0
91-58-7	2-Chloronaphthalene	Not Detected	260		1.0
95-57-8	2-Chlorophenol	Not Detected	430		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2200	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	330		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	430		1.0
88-74-4	2-Nitroaniline	Not Detected	660		1.0
88-75-5	2-Nitrophenol	Not Detected	430		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	870		1.0
99-09-2	3-Nitroaniline	Not Detected	660		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	260		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	260		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	130		1.0
100-01-6	4-Nitroaniline	Not Detected	660		1.0
100-02-7	4-Nitrophenol	Not Detected	2200	Z	1.0
83-32-9	Acenaphthene	250	130		1.0
208-96-8	Acenaphthylene	210	130		1.0
120-12-7	Anthracene	800	130		1.0
103-33-3	Azobenzene	Not Detected	260		1.0
56-55-3	Benzo[a]anthracene	1900	130		1.0
50-32-8	Benzo[a]pyrene	1800	260		1.0
205-99-2	Benzo[b]fluoranthene	2300	260		1.0
191-24-2	Benzo[g,h,i]perylene	650	260		1.0
207-08-9	Benzo[k]fluoranthene	880	260		1.0
100-51-6	Benzyl Alcohol	Not Detected	3300	5	1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	260		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	130		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	130		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07420 SB-07

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	330		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	330		1.0
86-74-8	Carbazole	Not Detected	330		1.0
218-01-9	Chrysene	1900	130		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	260		1.0
132-64-9	Dibenzofuran	Not Detected	330		1.0
84-66-2	Diethylphthalate	Not Detected	330		1.0
131-11-3	Dimethyl phthalate	Not Detected	330		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	330		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	330		1.0
206-44-0	Fluoranthene	4200	130		1.0
86-73-7	Fluorene	290	130		1.0
118-74-1	Hexachlorobenzene	Not Detected	260		1.0
87-68-3	Hexachlorobutadiene	Not Detected	130	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1300	Z	1.0
67-72-1	Hexachloroethane	Not Detected	130		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	740	260		1.0
78-59-1	Isophorone	Not Detected	130		1.0
91-20-3	Naphthalene	200	130		1.0
98-95-3	Nitrobenzene	Not Detected	260		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	330		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	260		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	260		1.0
87-86-5	Pentachlorophenol	Not Detected	2200	Z=800	1.0
85-01-8	Phenanthrene	2700	130		1.0
108-95-2	Phenol	Not Detected	430		1.0
129-00-0	Pyrene	3300	130		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.27			
SURROGATE	#Bromofluorobenzene#	126			
SURROGATE	#Dibromofluoromethane#	148			
SURROGATE	#Toluene-d8#	130			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	80		50
71-55-6	1,1,1-Trichloroethane	Not Detected	80		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	80		50

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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07420 SB-07

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	80		50
75-34-3	1,1-Dichloroethane	Not Detected	80		50
75-35-4	1,1-Dichloroethylene	Not Detected	80		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	400		50
96-18-4	1,2,3-Trichloropropane	Not Detected	80		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	80		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	400		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	80		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	400		50
106-93-4	1,2-Dibromoethane	Not Detected	80	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	80		50
107-06-2	1,2-Dichloroethane	Not Detected	80		50
78-87-5	1,2-Dichloropropane	Not Detected	80		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	80		50
541-73-1	1,3-Dichlorobenzene	Not Detected	80		50
106-46-7	1,4-Dichlorobenzene	Not Detected	80		50
78-93-3	2-Butanone (MEK)	Not Detected	400		50
591-78-6	2-Hexanone	Not Detected	400		50
91-57-6	2-Methylnaphthalene	Not Detected	400	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1600		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	400		50
107-13-1	Acrylonitrile	Not Detected	400	Z	50
71-43-2	Benzene	Not Detected	80		50
108-86-1	Bromobenzene	Not Detected	80		50
74-97-5	Bromochloromethane	Not Detected	80		50
75-27-4	Bromodichloromethane	Not Detected	80		50
75-25-2	Bromoform	Not Detected	80		50
74-83-9	Bromomethane	Not Detected	320		50
75-15-0	Carbon disulfide	Not Detected	80		50
56-23-5	Carbon tetrachloride	Not Detected	80		50
108-90-7	Chlorobenzene	Not Detected	80		50
75-00-3	Chloroethane	Not Detected	400		50
67-66-3	Chloroform	Not Detected	80		50
74-87-3	Chloromethane	Not Detected	400		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	80		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	80		50
110-82-7	Cyclohexane	Not Detected	400		50
124-48-1	Dibromochloromethane	Not Detected	80		50
74-95-3	Dibromomethane	Not Detected	80		50
75-71-8	Dichlorodifluoromethane	Not Detected	400		50
60-29-7	Diethyl ether	Not Detected	320		50

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Sample Number: AB07420 SB-07

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	400		50
100-41-4	Ethylbenzene	Not Detected	80		50
637-92-3	Ethyltertiarybutylether	Not Detected	400		50
67-72-1	Hexachloroethane	Not Detected	400		50
98-82-8	Isopropylbenzene	Not Detected	80		50
108383,106423	m & p - Xylene	Not Detected	160		50
74-88-4	Methyl Iodide	Not Detected	80		50
75-09-2	Methylene chloride	Not Detected	160		50
1634-04-4	Methyltertiarybutylether	Not Detected	80		50
91-20-3	Naphthalene	Not Detected	400	X	50
104-51-8	n-Butylbenzene	Not Detected	80		50
103-65-1	n-Propylbenzene	Not Detected	80		50
95-47-6	o-Xylene	Not Detected	80		50
99-87-6	p-Isopropyl toluene	Not Detected	80		50
135-98-8	sec-Butylbenzene	Not Detected	80		50
100-42-5	Styrene	Not Detected	80		50
98-06-6	tert-Butylbenzene	Not Detected	80		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4000		50
994-05-8	tertiaryAmylmethylether	Not Detected	400		50
127-18-4	Tetrachloroethylene	Not Detected	80		50
109-99-9	Tetrahydrofuran	Not Detected	400		50
108-88-3	Toluene	Not Detected	80		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	80		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	80		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	400	Z	50
79-01-6	Trichloroethylene	Not Detected	80		50
75-69-4	Trichlorofluoromethane	Not Detected	80		50
75-01-4	Vinyl chloride	Not Detected	80	Z	50

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Sample **AB07420** **SB-07**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	7.3	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.64	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	4.4	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	9.8	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	92	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	1.4	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	1.4	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-47-3	Chromium - Sediment	13	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	7.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	46	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	44000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	390	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	270	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	1.7	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	17	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.78	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-22-4	Silver - Sediment	0.21	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	17	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	650	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	75.9	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07421 SB-08

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/22/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/09/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	54.6			
SURROGATE	#Tetrachloro-m-xylene#	75.0			
72-54-8	4,4'-DDD	Not Detected	28		1.0
72-55-9	4,4'-DDE	Not Detected	28		1.0
50-29-3	4,4'-DDT	Not Detected	28		1.0
319-84-6	a-BHC	Not Detected	14		1.0
5103-71-9	a-Chlordane	Not Detected	28		1.0
309-00-2	Aldrin	Not Detected	28		1.0
12674-11-2	Aroclor 1016	Not Detected	140		1.0
11104-28-2	Aroclor 1221	Not Detected	140		1.0
11141-16-5	Aroclor 1232	Not Detected	140		1.0
53469-21-9	Aroclor 1242	Not Detected	140		1.0
12672-29-6	Aroclor 1248	Not Detected	140		1.0
11097-69-1	Aroclor 1254	Not Detected	140		1.0
11096-82-5	Aroclor 1260	Not Detected	140		1.0
37324-23-5	Aroclor 1262	Not Detected	140		1.0
11100-14-4	Aroclor 1268	Not Detected	140		1.0
319-85-7	b-BHC	Not Detected	28		1.0
319-86-8	d-BHC	Not Detected	28		1.0
60-57-1	Dieldrin	Not Detected	28		1.0
959-98-8	Endosulfan I	Not Detected	28		1.0
33213-65-9	Endosulfan II	Not Detected	28		1.0
1031-07-8	Endosulfan sulfate	Not Detected	28		1.0
72-20-8	Endrin	Not Detected	28		1.0
7421-93-4	Endrin aldehyde	Not Detected	28		1.0
53494-70-5	Endrin ketone	Not Detected	28		1.0
58-89-9	g-BHC (Lindane)	Not Detected	28		1.0
5103-74-2	g-Chlordane	Not Detected	28		1.0
76-44-8	Heptachlor	Not Detected	28		1.0
1024-57-3	Heptachlor epoxide	Not Detected	28		1.0
87-82-1	Hexabromobenzene	Not Detected	140		1.0
72-43-5	Methoxychlor	Not Detected	71		1.0
2385-85-5	Mirex	Not Detected	71		1.0
59080-40-9	PBB (BP-6)	Not Detected	350		1.0
8001-35-2	Toxaphene	Not Detected	240		1.0

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Sample Number: AB07421 SB-08

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	72.7			
SURROGATE	#2,4,6-Tribromophenol#	98.4			
SURROGATE	#2-Fluorophenol#	64.4			
SURROGATE	#Nitrobenzene - D5#	78.0			
SURROGATE	#Phenol - D6#	69.0			
SURROGATE	#p-Terphenyl-d14#	Not Applicable		V	
120-82-1	1,2,4-Trichlorobenzene	Not Detected	280		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	470		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	470		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	470		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	470		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2400	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	350		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	350		1.0
91-58-7	2-Chloronaphthalene	Not Detected	280		1.0
95-57-8	2-Chlorophenol	Not Detected	470		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2400	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	350		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	470		1.0
88-74-4	2-Nitroaniline	Not Detected	710		1.0
88-75-5	2-Nitrophenol	Not Detected	470		1.0
108394-106445	3 & 4-Methylphenol	Not Detected	930		1.0
99-09-2	3-Nitroaniline	Not Detected	710		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	280		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	280		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	140		1.0
100-01-6	4-Nitroaniline	Not Detected	710		1.0
100-02-7	4-Nitrophenol	Not Detected	2400	Z	1.0
83-32-9	Acenaphthene	Not Detected	140		1.0
208-96-8	Acenaphthylene	Not Detected	140		1.0
120-12-7	Anthracene	Not Detected	140		1.0
103-33-3	Azobenzene	Not Detected	280		1.0
56-55-3	Benzo[a]anthracene	1400	1400		10
50-32-8	Benzo[a]pyrene	Not Detected	2800		10
205-99-2	Benzo[b]fluoranthene	Not Detected	2800		10
191-24-2	Benzo[g,h,i]perylene	Not Detected	2800		10
207-08-9	Benzo[k]fluoranthene	Not Detected	2800		10
100-51-6	Benzyl Alcohol	Not Detected	3500	5	1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	280		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	140		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	140		1.0

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07421 SB-08

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/26/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	3500		10
85-68-7	Butyl benzyl phthalate	Not Detected	3500		10
86-74-8	Carbazole	Not Detected	350		1.0
218-01-9	Chrysene	1100	1400	T	10
53-70-3	Dibenz[a,h]anthracene	Not Detected	2800		10
132-64-9	Dibenzofuran	Not Detected	350		1.0
84-66-2	Diethylphthalate	Not Detected	350		1.0
131-11-3	Dimethyl phthalate	Not Detected	350		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	350		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	3500		10
206-44-0	Fluoranthene	Not Detected	140		1.0
86-73-7	Fluorene	Not Detected	140		1.0
118-74-1	Hexachlorobenzene	Not Detected	280		1.0
87-68-3	Hexachlorobutadiene	Not Detected	140	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1400	Z	1.0
67-72-1	Hexachloroethane	Not Detected	140		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2800		10
78-59-1	Isophorone	Not Detected	140		1.0
91-20-3	Naphthalene	Not Detected	140		1.0
98-95-3	Nitrobenzene	Not Detected	280		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	350		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	280		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	280		1.0
87-86-5	Pentachlorophenol	Not Detected	2400	Z=800	1.0
85-01-8	Phenanthrene	Not Detected	140		1.0
108-95-2	Phenol	Not Detected	470		1.0
129-00-0	Pyrene	1200	1400	T	10

RLs raised due to matrix interference.
Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.72			
SURROGATE	#Bromofluorobenzene#	129			
SURROGATE	#Dibromofluoromethane#	149			
SURROGATE	#Toluene-d8#	132			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	93		50
71-55-6	1,1,1-Trichloroethane	Not Detected	93		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07421 SB-08

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	93		50
79-00-5	1,1,2-Trichloroethane	Not Detected	93		50
75-34-3	1,1-Dichloroethane	Not Detected	93		50
75-35-4	1,1-Dichloroethylene	Not Detected	93		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	470		50
96-18-4	1,2,3-Trichloropropane	Not Detected	93		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	93		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	470		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	93		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	470		50
106-93-4	1,2-Dibromoethane	Not Detected	93	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	93		50
107-06-2	1,2-Dichloroethane	Not Detected	93		50
78-87-5	1,2-Dichloropropane	Not Detected	93		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	93		50
541-73-1	1,3-Dichlorobenzene	Not Detected	93		50
106-46-7	1,4-Dichlorobenzene	Not Detected	93		50
78-93-3	2-Butanone (MEK)	Not Detected	470		50
591-78-6	2-Hexanone	Not Detected	470		50
91-57-6	2-Methylnaphthalene	Not Detected	470	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1900		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	470		50
107-13-1	Acrylonitrile	Not Detected	470	Z	50
71-43-2	Benzene	Not Detected	93		50
108-86-1	Bromobenzene	Not Detected	93		50
74-97-5	Bromochloromethane	Not Detected	93		50
75-27-4	Bromodichloromethane	Not Detected	93		50
75-25-2	Bromoform	Not Detected	93		50
74-83-9	Bromomethane	Not Detected	370		50
75-15-0	Carbon disulfide	Not Detected	93		50
56-23-5	Carbon tetrachloride	Not Detected	93		50
108-90-7	Chlorobenzene	Not Detected	93		50
75-00-3	Chloroethane	Not Detected	470		50
67-66-3	Chloroform	Not Detected	93		50
74-87-3	Chloromethane	Not Detected	470		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	93		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	93		50
110-82-7	Cyclohexane	Not Detected	470		50
124-48-1	Dibromochloromethane	Not Detected	93		50
74-95-3	Dibromomethane	Not Detected	93		50
75-71-8	Dichlorodifluoromethane	Not Detected	470		50

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07421 SB-08

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
60-29-7	Diethyl ether	Not Detected	470		50
108-20-3	Diisopropyl Ether	Not Detected	470		50
100-41-4	Ethylbenzene	Not Detected	93		50
637-92-3	Ethyltertiarybutylether	Not Detected	470		50
67-72-1	Hexachloroethane	Not Detected	470		50
98-82-8	Isopropylbenzene	Not Detected	93		50
108383,106423	m-& p-Xylene	Not Detected	190		50
74-88-4	Methyl iodide	Not Detected	93		50
75-09-2	Methylene chloride	Not Detected	190		50
1634-04-4	Methyltertiarybutylether	Not Detected	93		50
91-20-3	Naphthalene	Not Detected	470	X	50
104-51-8	n-Butylbenzene	Not Detected	93		50
103-65-1	n-Propylbenzene	Not Detected	93		50
95-47-6	o-Xylene	Not Detected	93		50
99-87-6	p-Isopropyl toluene	Not Detected	93		50
135-98-8	sec-Butylbenzene	Not Detected	93		50
100-42-5	Styrene	Not Detected	93		50
98-06-6	tert-Butylbenzene	Not Detected	93		50
75-65-0	tertiary-Butyl Alcohol	Not Detected	4700		50
994-05-8	tertiaryAmylmethylether	Not Detected	470		50
127-18-4	Tetrachloroethylene	Not Detected	93		50
109-99-9	Tetrahydrofuran	Not Detected	470		50
108-88-3	Toluene	Not Detected	93		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	93		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	93		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	470	Z	50
79-01-6	Trichloroethylene	Not Detected	93		50
75-69-4	Trichlorofluoromethane	Not Detected	93		50
75-01-4	Vinyl chloride	Not Detected	93	Z	50

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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample **AB07421** **SB-08**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	ND	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	0.86	mg/Kg dry	0.5		12/03/2007	6020	KS
7440-39-3	Barium - Sediment	9.0	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	3.3	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	1.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	4.2	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	3300	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	4.5	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	50	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	3.4	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.42	mg/Kg dry	0.2		12/03/2007	6020	KS
	Result is estimated due to inter-replicate sample analysis RSD >10%.							
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	5.9	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	9.5	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	70.7	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/13/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07422 SB-09

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	74.2			
SURROGATE	#Tetrachloro-m-xylene#	83.3			
72-54-8	4,4'-DDD	Not Detected	23		1.0
72-55-9	4,4'-DDE	Not Detected	23		1.0
50-29-3	4,4'-DDT	Not Detected	23		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	23		1.0
309-00-2	Aldrin	Not Detected	23		1.0
12674-11-2	Aroclor 1016	Not Detected	190	K	1.0
11104-28-2	Aroclor 1221	Not Detected	190	K	1.0
11141-16-5	Aroclor 1232	Not Detected	190	K	1.0
53469-21-9	Aroclor 1242	Not Detected	190	K	1.0
12672-29-6	Aroclor 1248	Not Detected	190	K	1.0
11097-69-1	Aroclor 1254	Not Detected	140	K	1.0
11096-82-5	Aroclor 1260	Not Detected	240	K	1.0
37324-23-5	Aroclor 1262	Not Detected	240	K	1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	23		1.0
319-86-8	d-BHC	Not Detected	23		1.0
60-57-1	Dieldrin	Not Detected	23		1.0
959-98-8	Endosulfan I	Not Detected	23		1.0
33213-65-9	Endosulfan II	Not Detected	23		1.0
1031-07-8	Endosulfan sulfate	Not Detected	23		1.0
72-20-8	Endrin	Not Detected	23		1.0
7421-93-4	Endrin aldehyde	Not Detected	23		1.0
53494-70-5	Endrin ketone	Not Detected	23		1.0
58-89-9	g-BHC (Lindane)	Not Detected	23		1.0
5103-74-2	g-Chlordane	Not Detected	23		1.0
76-44-8	Heptachlor	Not Detected	23		1.0
1024-57-3	Heptachlor epoxide	Not Detected	23		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	58		1.0
2385-85-5	Mirex	Not Detected	58		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	200		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07422 SB-09

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	74.3			
SURROGATE	#2,4,6-Tribromophenol#	70.3			
SURROGATE	#2-Fluorophenol#	64.7			
SURROGATE	#Nitrobenzene - D5#	68.2			
SURROGATE	#Phenol - D6#	72.5			
SURROGATE	#p-Terphenyl-d14#	79.7			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	230		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	380		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	380		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	380		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	380		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2000	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	230		1.0
95-57-8	2-Chlorophenol	Not Detected	380		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2000	Z	1.0
91-57-6	2-Methylnaphthalene	580	290		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	380		1.0
88-74-4	2-Nitroaniline	Not Detected	580		1.0
88-75-5	2-Nitrophenol	Not Detected	380		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	770		1.0
99-09-2	3-Nitroaniline	Not Detected	580		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	230		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	230		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	580	5	1.0
100-02-7	4-Nitrophenol	Not Detected	2000	Z	1.0
83-32-9	Acenaphthene	Not Detected	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	89	120	T	1.0
103-33-3	Azobenzene	Not Detected	230		1.0
56-55-3	Benzo[a]anthracene	460	120		1.0
50-32-8	Benzo[a]pyrene	510	230		1.0
205-99-2	Benzo[b]fluoranthene	820	230		1.0
191-24-2	Benzo[g,h,i]perylene	420	230		1.0
207-08-9	Benzo[k]fluoranthene	240	230		1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	230		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07422 SB-09

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	Not Detected	290		1.0
218-01-9	Chrysene	680	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	230		1.0
132-64-9	Dibenzofuran	190	290	T	1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	1000	120		1.0
86-73-7	Fluorene	Not Detected	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	230		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	350	230		1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	410	120		1.0
98-95-3	Nitrobenzene	Not Detected	230		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	230		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	230		1.0
87-86-5	Pentachlorophenol	Not Detected	2000	Z=800	1.0
85-01-8	Phenanthrene	1100	120		1.0
108-95-2	Phenol	Not Detected	380		1.0
129-00-0	Pyrene	870	120		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.16			
SURROGATE	#Bromofluorobenzene#	129			
SURROGATE	#Dibromofluoromethane#	152			
SURROGATE	#Toluene-d8#	132			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	71		50
71-55-6	1,1,1-Trichloroethane	Not Detected	71		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	71		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07422 SB-09

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	71		50
75-34-3	1,1-Dichloroethane	Not Detected	71		50
75-35-4	1,1-Dichloroethylene	Not Detected	71		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	360		50
96-18-4	1,2,3-Trichloropropane	Not Detected	71		50
526-73-8	1,2,3-Trimethylbenzene	99	71		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	360		50
95-63-6	1,2,4-Trimethylbenzene	170	71		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	360		50
106-93-4	1,2-Dibromoethane	Not Detected	71	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	71		50
107-06-2	1,2-Dichloroethane	Not Detected	71		50
78-87-5	1,2-Dichloropropane	Not Detected	71		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	71		50
541-73-1	1,3-Dichlorobenzene	Not Detected	71		50
106-46-7	1,4-Dichlorobenzene	Not Detected	71		50
78-93-3	2-Butanone (MEK)	Not Detected	360	7	50
591-78-6	2-Hexanone	Not Detected	360	7	50
91-57-6	2-Methylnaphthalene	500	360	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1400		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	360		50
107-13-1	Acrylonitrile	Not Detected	360	Z	50
71-43-2	Benzene	Not Detected	71		50
108-86-1	Bromobenzene	Not Detected	71		50
74-97-5	Bromochloromethane	Not Detected	71		50
75-27-4	Bromodichloromethane	Not Detected	71		50
75-25-2	Bromoform	Not Detected	71		50
74-83-9	Bromomethane	Not Detected	290		50
75-15-0	Carbon disulfide	Not Detected	71		50
56-23-5	Carbon tetrachloride	Not Detected	71		50
108-90-7	Chlorobenzene	Not Detected	71		50
75-00-3	Chloroethane	Not Detected	360		50
67-66-3	Chloroform	Not Detected	71		50
74-87-3	Chloromethane	Not Detected	360		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	71		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	71		50
110-82-7	Cyclohexane	Not Detected	360		50
124-48-1	Dibromochloromethane	Not Detected	71		50
74-95-3	Dibromomethane	Not Detected	71		50
75-71-8	Dichlorodifluoromethane	Not Detected	360		50
60-29-7	Diethyl ether	Not Detected	290		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07422 SB-09

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	360		50
100-41-4	Ethylbenzene	Not Detected	71		50
637-92-3	Ethyltertiarybutylether	Not Detected	360		50
67-72-1	Hexachloroethane	Not Detected	360		50
98-82-8	Isopropylbenzene	Not Detected	71		50
108383-106423	m &-p- Xylene	350	140		50
74-88-4	Methyl iodide	Not Detected	71		50
75-09-2	Methylene chloride	Not Detected	140		50
1634-04-4	Methyltertiarybutylether	Not Detected	71		50
91-20-3	Naphthalene	430	360	X	50
104-51-8	n-Butylbenzene	Not Detected	71		50
103-65-1	n-Propylbenzene	Not Detected	71		50
95-47-6	o-Xylene	230	71		50
99-87-6	p-Isopropyl toluene	Not Detected	71		50
135-98-8	sec-Butylbenzene	Not Detected	71		50
100-42-5	Styrene	Not Detected	71		50
98-06-6	tert-Butylbenzene	Not Detected	71		50
75-65-0	tertiary-Butyl-Alcohol	Not Detected	3600		50
994-05-8	tertiaryAmylmethylether	Not Detected	360		50
127-18-4	Tetrachloroethylene	Not Detected	71		50
109-99-9	Tetrahydrofuran	Not Detected	360		50
108-88-3	Toluene	310	71		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	71		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	71		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	360	Z	50
79-01-6	Trichloroethylene	Not Detected	71		50
75-69-4	Trichlorofluoromethane	Not Detected	71		50
75-01-4	Vinyl chloride	Not Detected	71	Z	50

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Sample **AB07422** **SB-09**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	16.5	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	15	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	1.3	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	8.4	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	77	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.73	mg/Kg dry	0.2		12/03/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.34	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	10	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	3.9	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	41	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	15000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	170	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	170	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	1.0	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	11	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.80	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.12	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	140	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	86.1	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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Sample Number: AB07423 SB-10

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	83.6			
SURROGATE	#Tetrachloro-m-xylene#	96.5			
72-54-8	4,4'-DDD	Not Detected	23		1.0
72-55-9	4,4'-DDE	Not Detected	23		1.0
50-29-3	4,4'-DDT	Not Detected	23		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	23		1.0
309-00-2	Aldrin	Not Detected	23		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	Not Detected	120		1.0
11096-82-5	Aroclor 1260	Not Detected	120		1.0
37324-23-5	Aroclor 1262	Not Detected	120		1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	23		1.0
319-86-8	d-BHC	Not Detected	23		1.0
60-57-1	Dieldrin	Not Detected	23		1.0
959-98-8	Endosulfan I	Not Detected	23		1.0
33213-65-9	Endosulfan II	Not Detected	23		1.0
1031-07-8	Endosulfan sulfate	Not Detected	23		1.0
72-20-8	Endrin	Not Detected	23		1.0
7421-93-4	Endrin aldehyde	Not Detected	23		1.0
53494-70-5	Endrin ketone	Not Detected	23		1.0
58-89-9	g-BHC (Lindane)	Not Detected	23		1.0
5103-74-2	g-Chlordane	Not Detected	23		1.0
76-44-8	Heptachlor	Not Detected	23		1.0
1024-57-3	Heptachlor epoxide	Not Detected	23		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	59		1.0
2385-85-5	Mirex	Not Detected	59		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	200		1.0

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Sample Number: AB07423 SB-10

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2-Fluorobiphenyl#	78.2			
SURROGATE	#2,4,6-Tribromophenol#	65.0			
SURROGATE	#2-Fluorophenol#	62.5			
SURROGATE	#Nitrobenzene - D5#	73.4			
SURROGATE	#Phenol - D6#	77.7			
SURROGATE	#p-Terphenyl-d14#	89.4			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	230		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	390		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	390		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	390		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	390		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2000	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	230		1.0
95-57-8	2-Chlorophenol	Not Detected	390		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2000	Z	1.0
91-57-6	2-Methylnaphthalene	Not Detected	290		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	390		1.0
88-74-4	2-Nitroaniline	Not Detected	590		1.0
88-75-5	2-Nitrophenol	Not Detected	390		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	770		1.0
99-09-2	3-Nitroaniline	Not Detected	590		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	230		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	230		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	590	Z	1.0
100-02-7	4-Nitrophenol	Not Detected	2000	Z	1.0
83-32-9	Acenaphthene	200	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	520	120		1.0
103-33-3	Azobenzene	Not Detected	230		1.0
56-55-3	Benzo[a]anthracene	1100	120		1.0
50-32-8	Benzo[a]pyrene	1200	230		1.0
205-99-2	Benzo[b]fluoranthene	1400	230		1.0
191-24-2	Benzo[g,h,i]perylene	620	230		1.0
207-08-9	Benzo[k]fluoranthene	490	230		1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	230		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07423 SB-10

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	190	290	T	1.0
218-01-9	Chrysene	1300	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	230		1.0
132-64-9	Dibenzofuran	160	290	T	1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	3000	120		1.0
86-73-7	Fluorene	250	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	230		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	530	230		1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	160	120		1.0
98-95-3	Nitrobenzene	Not Detected	230		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	230		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	230		1.0
87-86-5	Pentachlorophenol	Not Detected	2000	Z=800	1.0
85-01-8	Phenanthrene	2400	120		1.0
108-95-2	Phenol	Not Detected	390		1.0
129-00-0	Pyrene	2800	120		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.38			
SURROGATE	#Bromofluorobenzene#	140			
SURROGATE	#Dibromofluoromethane#	130			
SURROGATE	#Toluene-d8#	143			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	71		50
71-55-6	1,1,1-Trichloroethane	Not Detected	71		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	71		50

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Sample Number: AB07423 SB-10

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	71		50
75-34-3	1,1-Dichloroethane	Not Detected	71		50
75-35-4	1,1-Dichloroethylene	Not Detected	71		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	360		50
96-18-4	1,2,3-Trichloropropane	Not Detected	71		50
526-73-8	1,2,3-Trimethylbenzene	140	71		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	360		50
95-63-6	1,2,4-Trimethylbenzene	140	71		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	360		50
106-93-4	1,2-Dibromoethane	Not Detected	71	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	71		50
107-06-2	1,2-Dichloroethane	Not Detected	71		50
78-87-5	1,2-Dichloropropane	Not Detected	71		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	71		50
541-73-1	1,3-Dichlorobenzene	Not Detected	71		50
106-46-7	1,4-Dichlorobenzene	Not Detected	71		50
78-93-3	2-Butanone (MEK)	360	360	7	50
591-78-6	2-Hexanone	Not Detected	360	7	50
91-57-6	2-Methylnaphthalene	630	360	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1400		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	360		50
107-13-1	Acrylonitrile	Not Detected	360	Z	50
71-43-2	Benzene	Not Detected	71		50
108-86-1	Bromobenzene	Not Detected	71		50
74-97-5	Bromochloromethane	Not Detected	71		50
75-27-4	Bromodichloromethane	Not Detected	71		50
75-25-2	Bromoform	Not Detected	71		50
74-83-9	Bromomethane	Not Detected	280		50
75-15-0	Carbon disulfide	Not Detected	71		50
56-23-5	Carbon tetrachloride	Not Detected	71		50
108-90-7	Chlorobenzene	Not Detected	71		50
75-00-3	Chloroethane	Not Detected	360		50
67-66-3	Chloroform	Not Detected	71		50
74-87-3	Chloromethane	Not Detected	360		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	71		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	71		50
110-82-7	Cyclohexane	Not Detected	360		50
124-48-1	Dibromochloromethane	Not Detected	71		50
74-95-3	Dibromomethane	Not Detected	71		50
75-71-8	Dichlorodifluoromethane	Not Detected	360		50
60-29-7	Diethyl ether	Not Detected	280		50

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Sample Number: AB07423 SB-10

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	360		50
100-41-4	Ethylbenzene	Not Detected	71		50
637-92-3	Ethyltertiarybutylether	Not Detected	360		50
67-72-1	Hexachloroethane	Not Detected	360		50
98-82-8	Isopropylbenzene	Not Detected	71		50
108383,106423	m & p - Xylene	250	140		50
74-88-4	Methyl Iodide	Not Detected	71		50
75-09-2	Methylene chloride	Not Detected	140		50
1634-04-4	Methyltertiarybutylether	Not Detected	71		50
91-20-3	Naphthalene	470	360	X	50
104-51-8	n-Butylbenzene	Not Detected	71		50
103-65-1	n-Propylbenzene	Not Detected	71		50
95-47-6	o-Xylene	150	71		50
99-87-6	p-Isopropyl toluene	Not Detected	71		50
135-98-8	sec-Butylbenzene	Not Detected	71		50
100-42-5	Styrene	Not Detected	71		50
98-06-6	tert-Butylbenzene	Not Detected	71		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3600		50
994-05-8	tertiaryAmylmethylether	Not Detected	360		50
127-18-4	Tetrachloroethylene	Not Detected	71		50
109-99-9	Tetrahydrofuran	Not Detected	360		50
108-88-3	Toluene	220	71		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	71		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	71		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	360	Z	50
79-01-6	Trichloroethylene	Not Detected	71		50
75-69-4	Trichlorofluoromethane	Not Detected	71		50
75-01-4	Vinyl chloride	Not Detected	71	Z	50

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample **AB07423** **SB-10**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.21	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.39	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	6.4	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	41	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.49	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.25	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	10	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	4.4	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	17	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	12000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	27	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	140	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	1.2	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	13	mg/Kg dry	1		12/03/2007	6020	KS
7440-66-6	Zinc - Sediment	70	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	85.2	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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Sample **AB07424** **SB-11**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.52	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	3.4	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	93	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.37	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	13	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	3.0	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	8.3	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	8600	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	2.5	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	210	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.10	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	17	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	22	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	65.2	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07425 SB-12

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	85.3			
SURROGATE	#Tetrachloro-m-xylene#	84.6			
72-54-8	4,4'-DDD	Not Detected	24		1.0
72-55-9	4,4'-DDE	Not Detected	24		1.0
50-29-3	4,4'-DDT	Not Detected	24		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	24		1.0
309-00-2	Aldrin	Not Detected	24		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	Not Detected	120		1.0
11096-82-5	Aroclor 1260	Not Detected	120		1.0
37324-23-5	Aroclor 1262	Not Detected	120		1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	24		1.0
319-86-8	d-BHC	Not Detected	24		1.0
60-57-1	Dieldrin	Not Detected	24		1.0
959-98-8	Endosulfan I	Not Detected	24		1.0
33213-65-9	Endosulfan II	Not Detected	24		1.0
1031-07-8	Endosulfan sulfate	Not Detected	24		1.0
72-20-8	Endrin	Not Detected	24		1.0
7421-93-4	Endrin aldehyde	Not Detected	24		1.0
53494-70-5	Endrin ketone	Not Detected	24		1.0
58-89-9	g-BHC (Lindane)	Not Detected	24		1.0
5103-74-2	g-Chlordane	Not Detected	24		1.0
76-44-8	Heptachlor	Not Detected	24		1.0
1024-57-3	Heptachlor epoxide	Not Detected	24		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	61		1.0
2385-85-5	Mirex	Not Detected	61		1.0
59080-40-9	PBB (BP-6)	Not Detected	310		1.0
8001-35-2	Toxaphene	Not Detected	210		1.0

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Sample Number: AB07425 SB-12

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	74.0			
SURROGATE	#2,4,6-Tribromophenol#	70.5			
SURROGATE	#2-Fluorophenol#	64.4			
SURROGATE	#Nitrobenzene - D5#	66.6			
SURROGATE	#Phenol - D6#	71.9			
SURROGATE	#p-Terphenyl-d14#	81.8			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	240		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	400		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	400		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	400		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	400		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2100	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	310		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	310		1.0
91-58-7	2-Chloronaphthalene	Not Detected	240		1.0
95-57-8	2-Chlorophenol	Not Detected	400		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2100	Z	1.0
91-57-6	2-Methylnaphthalene	190	310	J	1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	400		1.0
88-74-4	2-Nitroaniline	Not Detected	610		1.0
88-75-5	2-Nitrophenol	Not Detected	400		1.0
108394-106445	3 & 4-Methylphenol	Not Detected	810		1.0
99-09-2	3-Nitroaniline	Not Detected	610		1.0
101-55-3	4-Bromophenyl-phenyl ether	Not Detected	240		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	240		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	610	5	1.0
100-02-7	4-Nitrophenol	Not Detected	2100	Z	1.0
83-32-9	Acenaphthene	94	120	T	1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	330	120		1.0
103-33-3	Azobenzene	Not Detected	240		1.0
56-55-3	Benzo[a]anthracene	540	120		1.0
50-32-8	Benzo[a]pyrene	490	240		1.0
205-99-2	Benzo[b]fluoranthene	570	240		1.0
191-24-2	Benzo[g,h,i]perylene	250	240		1.0
207-08-9	Benzo[k]fluoranthene	170	240	T	1.0
100-51-6	Benzyl Alcohol	Not Detected	3100		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	240		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

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Sample Number: AB07425 SB-12

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	310		1.0
85-68-7	Butyl benzyl phthalate	530	310		1.0
86-74-8	Carbazole	Not Detected	310		1.0
218-01-9	Chrysene	540	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	240		1.0
132-64-9	Dibenzofuran	Not Detected	310		1.0
84-66-2	Diethylphthalate	Not Detected	310		1.0
131-11-3	Dimethyl phthalate	Not Detected	310		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	310		1.0
117-84-0	Di-n-octyl phthalate	340	310		1.0
206-44-0	Fluoranthene	1300	120		1.0
86-73-7	Fluorene	110	120	T	1.0
118-74-1	Hexachlorobenzene	Not Detected	240		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	230	240	T	1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	200	120		1.0
98-95-3	Nitrobenzene	Not Detected	240		1.0
62-75-9	N-Nitrosodimethylamine	Not Detected	310		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	240		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	240		1.0
87-86-5	Pentachlorophenol	Not Detected	2100	Z=800	1.0
85-01-8	Phenanthrene	1000	120		1.0
108-95-2	Phenol	Not Detected	400		1.0
129-00-0	Pyrene	1000	120		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.22			
SURROGATE	#Bromofluorobenzene#	141			
SURROGATE	#Dibromofluoromethane#	161			
SURROGATE	#Toluene-d8#	145			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	71		50
71-55-6	1,1,1-Trichloroethane	Not Detected	71		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	71		50

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Sample Number: AB07425 SB-12

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	71		50
75-34-3	1,1-Dichloroethane	Not Detected	71		50
75-35-4	1,1-Dichloroethylene	Not Detected	71		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	360		50
96-18-4	1,2,3-Trichloropropane	Not Detected	71		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	71		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	360		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	71		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	360		50
106-93-4	1,2-Dibromoethane	Not Detected	71	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	71		50
107-06-2	1,2-Dichloroethane	Not Detected	71		50
78-87-5	1,2-Dichloropropane	Not Detected	71		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	71		50
541-73-1	1,3-Dichlorobenzene	Not Detected	71		50
106-46-7	1,4-Dichlorobenzene	Not Detected	71		50
78-93-3	2-Butanone (MEK)	Not Detected	360	7	50
591-78-6	2-Hexanone	Not Detected	360	7	50
91-57-6	2-Methylnaphthalene	Not Detected	360	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1400		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	360		50
107-13-1	Acrylonitrile	Not Detected	360	Z	50
71-43-2	Benzene	Not Detected	71		50
108-86-1	Bromobenzene	Not Detected	71		50
74-97-5	Bromochloromethane	Not Detected	71		50
75-27-4	Bromodichloromethane	Not Detected	71		50
75-25-2	Bromoform	Not Detected	71		50
74-83-9	Bromomethane	Not Detected	280		50
75-15-0	Carbon disulfide	Not Detected	71		50
56-23-5	Carbon tetrachloride	Not Detected	71		50
108-90-7	Chlorobenzene	Not Detected	71		50
75-00-3	Chloroethane	Not Detected	360		50
67-66-3	Chloroform	Not Detected	71		50
74-87-3	Chloromethane	Not Detected	360		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	71		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	71		50
110-82-7	Cyclohexane	Not Detected	360		50
124-48-1	Dibromochloromethane	Not Detected	71		50
74-95-3	Dibromomethane	Not Detected	71		50
75-71-8	Dichlorodifluoromethane	Not Detected	360		50
60-29-7	Diethyl ether	Not Detected	280		50

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Systems Mgmt Unit: George Krisztian

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ENVIRONMENTAL LABORATORY
P.O. Box 30270
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Sample Number: AB07425 SB-12

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	360		50
100-41-4	Ethylbenzene	Not Detected	71		50
637-92-3	Ethyltertiarybutylether	Not Detected	360		50
67-72-1	Hexachloroethane	Not Detected	360		50
98-82-8	Isopropylbenzene	Not Detected	71		50
108383-106423	m & p - Xylene	Not Detected	140		50
74-88-4	Methyl iodide	Not Detected	71		50
75-09-2	Methylene chloride	Not Detected	140		50
1634-04-4	Methyltertiarybutylether	Not Detected	71		50
91-20-3	Naphthalene	Not Detected	360	X	50
104-51-8	n-Butylbenzene	Not Detected	71		50
103-65-1	n-Propylbenzene	Not Detected	71		50
95-47-6	o-Xylene	Not Detected	71		50
99-87-6	p-Isopropyl toluene	Not Detected	71		50
135-98-8	sec-Butylbenzene	Not Detected	71		50
100-42-5	Styrene	Not Detected	71		50
98-06-6	tert-Butylbenzene	Not Detected	71		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3600		50
994-05-8	tertiaryAmylmethylether	Not Detected	360		50
127-18-4	Tetrachloroethylene	Not Detected	71		50
109-99-9	Tetrahydrofuran	Not Detected	360		50
108-88-3	Toluene	Not Detected	71		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	71		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	71		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	360	Z	50
79-01-6	Trichloroethylene	Not Detected	71		50
75-69-4	Trichlorofluoromethane	Not Detected	71		50
75-01-4	Vinyl chloride	Not Detected	71	Z	50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
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Sample **AB07425** **SB-12**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.16	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	ND	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	ND	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	3.6	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	19	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	ND	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	5.8	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	2.7	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	5.8	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	6300	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	9.8	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	160	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	7.1	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.31	mg/Kg dry	0.2		12/03/2007	6020	KS
	Result is estimated due to inter-replicate sample analysis RSD >10%.							
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	6.6	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	20	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	81.7	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07426 SB-13

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	65.6			
SURROGATE	#Tetrachloro-m-xylene#	59.2			
72-54-8	4,4'-DDD	Not Detected	26		1.0
72-55-9	4,4'-DDE	Not Detected	26		1.0
50-29-3	4,4'-DDT	Not Detected	130	K	5.0
319-84-6	a-BHC	Not Detected	15	K	1.0
5103-71-9	a-Chlordane	Not Detected	26		1.0
309-00-2	Aldrin	Not Detected	26		1.0
12674-11-2	Aroclor 1016	Not Detected	1800	K	5.0
11104-28-2	Aroclor 1221	Not Detected	1800	K	5.0
11141-16-5	Aroclor 1232	Not Detected	1800	K	5.0
53469-21-9	Aroclor 1242	Not Detected	660	K	5.0
12672-29-6	Aroclor 1248	Not Detected	660	K	5.0
11097-69-1	Aroclor 1254	Not Detected	660	K	5.0
11096-82-5	Aroclor 1260	Not Detected	660	K	5.0
37324-23-5	Aroclor 1262	Not Detected	660	K	5.0
11100-14-4	Aroclor 1268	Not Detected	660	K	5.0
319-85-7	b-BHC	Not Detected	26		1.0
319-86-8	d-BHC	Not Detected	26		1.0
60-57-1	Dieldrin	Not Detected	26		1.0
959-98-8	Endosulfan I	Not Detected	26		1.0
33213-65-9	Endosulfan II	Not Detected	26		1.0
1031-07-8	Endosulfan sulfate	Not Detected	26		1.0
72-20-8	Endrin	Not Detected	26		1.0
7421-93-4	Endrin aldehyde	Not Detected	26		1.0
53494-70-5	Endrin ketone	Not Detected	26		1.0
58-89-9	g-BHC (Lindane)	Not Detected	26		1.0
5103-74-2	g-Chlordane	Not Detected	26		1.0
76-44-8	Heptachlor	Not Detected	26		1.0
1024-57-3	Heptachlor epoxide	Not Detected	26		1.0
87-82-1	Hexabromobenzene	Not Detected	130		1.0
72-43-5	Methoxychlor	Not Detected	66		1.0
2385-85-5	Mirex	Not Detected	66		1.0
59080-40-9	PBB (BP-6)	Not Detected	330		1.0
8001-35-2	Toxaphene	Not Detected	1100	K	5.0

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mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07426 SB-13

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/27/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	83.6			
SURROGATE	#2,4,6-Tribromophenol#	75.0			
SURROGATE	#2-Fluorophenol#	55.6			
SURROGATE	#Nitrobenzene - D5#	95.2			
SURROGATE	#Phenol - D6#	65.4			
SURROGATE	#p-Terphenyl-d14#	76.0			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2600		10
95-95-4	2,4,5-Trichlorophenol	Not Detected	4400		10
88-06-2	2,4,6-Trichlorophenol	Not Detected	4400		10
120-83-2	2,4-Dichlorophenol	Not Detected	4400		10
105-67-9	2,4-Dimethylphenol	Not Detected	4400		10
51-28-5	2,4-Dinitrophenol	Not Detected	22000	Z	10
121-14-2	2,4-Dinitrotoluene	Not Detected	3300		10
606-20-2	2,6-Dinitrotoluene	Not Detected	3300		10
91-58-7	2-Chloronaphthalene	Not Detected	2600		10
95-57-8	2-Chlorophenol	Not Detected	4400		10
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	22000	Z	10
91-57-6	2-Methylnaphthalene	32000	3300		10
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	4400		10
88-74-4	2-Nitroaniline	Not Detected	6600		10
88-75-5	2-Nitrophenol	Not Detected	4400		10
108394,106445	3 &4-Methylphenol	Not Detected	8700		10
99-09-2	3-Nitroaniline	Not Detected	6600		10
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2600		10
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	2600		10
7005-72-3	4-Chlorodiphenylether	Not Detected	1300		10
100-01-6	4-Nitroaniline	Not Detected	6600		10
100-02-7	4-Nitrophenol	Not Detected	22000	Z	10
83-32-9	Acenaphthene	Not Detected	1300		10
208-96-8	Acenaphthylene	Not Detected	1300		10
120-12-7	Anthracene	Not Detected	1300		10
103-33-3	Azobenzene	Not Detected	2600		10
56-55-3	Benzo[a]anthracene	930	1300	T	10
50-32-8	Benzo[a]pyrene	Not Detected	2600		10
205-99-2	Benzo[b]fluoranthene	Not Detected	2600		10
191-24-2	Benzo[g,h,i]perylene	Not Detected	2600		10
207-08-9	Benzo[k]fluoranthene	Not Detected	2600		10
100-51-6	Benzyl Alcohol	Not Detected	33000	5	10
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2600		10
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1300		10
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1300		10

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Sample Number: AB07426 SB-13

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/27/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	3300		10
85-68-7	Butyl benzyl phthalate	Not Detected	3300		10
86-74-8	Carbazole	Not Detected	3300		10
218-01-9	Chrysene	1200	1300	T	10
53-70-3	Dibenz[a,h]anthracene	Not Detected	2600		10
132-64-9	Dibenzofuran	Not Detected	3300		10
84-66-2	Diethylphthalate	Not Detected	3300		10
131-11-3	Dimethyl phthalate	Not Detected	3300		10
84-74-2	Di-n-butyl phthalate	Not Detected	3300		10
117-84-0	Di-n-octyl phthalate	Not Detected	3300		10
206-44-0	Fluoranthene	2200	1300		10
86-73-7	Fluorene	1100	1300	T	10
118-74-1	Hexachlorobenzene	Not Detected	2600		10
87-68-3	Hexachlorobutadiene	Not Detected	1300	Z	10
77-47-4	Hexachlorocyclopentadiene	Not Detected	13000	Z	10
67-72-1	Hexachloroethane	Not Detected	1300		10
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2600		10
78-59-1	Isophorone	Not Detected	1300		10
91-20-3	Naphthalene	15000	1300		10
98-95-3	Nitrobenzene	Not Detected	2600		10
62-75-9	N-Nitrosodimethylamine	Not Detected	3300	5	10
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2600	5	10
86-30-6	N-Nitrosodiphenylamine	Not Detected	2600		10
87-86-5	Pentachlorophenol	Not Detected	22000	Z=800	10
85-01-8	Phenanthrene	5300	1300		10
108-95-2	Phenol	Not Detected	4400		10
129-00-0	Pyrene	2700	1300		10

RLs raised due to matrix interference.
Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	8.65			
SURROGATE	#Bromofluorobenzene#	169			
SURROGATE	#Dibromofluoromethane#	131			
SURROGATE	#Toluene-d8#	128			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	92		50
71-55-6	1,1,1-Trichloroethane	Not Detected	92		50

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Sample Number: AB07426 SB-13

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	92		50
79-00-5	1,1,2-Trichloroethane	Not Detected	92		50
75-34-3	1,1-Dichloroethane	Not Detected	92		50
75-35-4	1,1-Dichloroethylene	Not Detected	92		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	460		50
96-18-4	1,2,3-Trichloropropane	Not Detected	92		50
526-73-8	1,2,3-Trimethylbenzene	10000	92		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	460		50
95-63-6	1,2,4-Trimethylbenzene	11000	92		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	460		50
106-93-4	1,2-Dibromoethane	Not Detected	92	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	92		50
107-06-2	1,2-Dichloroethane	Not Detected	92		50
78-87-5	1,2-Dichloropropane	Not Detected	92		50
108-67-8	1,3,5-Trimethylbenzene	4600	92		50
541-73-1	1,3-Dichlorobenzene	Not Detected	92		50
106-46-7	1,4-Dichlorobenzene	Not Detected	92		50
78-93-3	2-Butanone (MEK)	Not Detected	460	7	50
591-78-6	2-Hexanone	Not Detected	460	7	50
91-57-6	2-Methylnaphthalene	66000	18,000	X	2000
67-64-1	2-Propanone (acetone)	Not Detected	1800		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	460		50
107-13-1	Acrylonitrile	Not Detected	460	Z	50
71-43-2	Benzene	51000	3,700		2000
108-86-1	Bromobenzene	Not Detected	92		50
74-97-5	Bromochloromethane	Not Detected	92		50
75-27-4	Bromodichloromethane	Not Detected	92		50
75-25-2	Bromoform	Not Detected	92		50
74-83-9	Bromomethane	Not Detected	370		50
75-15-0	Carbon disulfide	Not Detected	92		50
56-23-5	Carbon tetrachloride	Not Detected	92		50
108-90-7	Chlorobenzene	Not Detected	92		50
75-00-3	Chloroethane	Not Detected	460		50
67-66-3	Chloroform	Not Detected	92		50
74-87-3	Chloromethane	Not Detected	460		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	92		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	92		50
110-82-7	Cyclohexane	44000	18,000		2000
124-48-1	Dibromochloromethane	Not Detected	92		50
74-95-3	Dibromomethane	Not Detected	92		50
75-71-8	Dichlorodifluoromethane	Not Detected	460		50

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Sample Number: AB07426 SB-13

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
60-29-7	Diethyl ether	Not Detected	370		50
108-20-3	Diisopropyl Ether	Not Detected	460		50
100-41-4	Ethylbenzene	19000	3,700		2000
637-92-3	Ethyltertiarybutylether	Not Detected	460		50
67-72-1	Hexachloroethane	Not Detected	460		50
98-82-8	Isopropylbenzene	23000	3,700		2000
108383,106423	m &p- Xylene	28000	7,400		2000
74-88-4	Methyl iodide	Not Detected	92		50
75-09-2	Methylene chloride	Not Detected	180		50
1634-04-4	Methyltertiarybutylether	Not Detected	92		50
91-20-3	Naphthalene	6600	460	X	50
104-51-8	n-Butylbenzene	20000	3,700		2000
103-65-1	n-Propylbenzene	58000	3,700		2000
95-47-6	o-Xylene	3500	92		50
99-87-6	p-Isopropyl toluene	3000	92		50
135-98-8	sec-Butylbenzene	9400	92		50
100-42-5	Styrene	Not Detected	92		50
98-06-6	tert-Butylbenzene	Not Detected	92		50
75-65-0	tertiary Butyl Alcohol	Not Detected	4600		50
994-05-8	tertiaryAmylmethylether	Not Detected	460		50
127-18-4	Tetrachloroethylene	Not Detected	92		50
109-99-9	Tetrahydrofuran	Not Detected	460		50
108-88-3	Toluene	4700	92		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	92		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	92		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	460	Z	50
79-01-6	Trichloroethylene	Not Detected	92		50
75-69-4	Trichlorofluoromethane	Not Detected	92		50
75-01-4	Vinyl chloride	Not Detected	92	Z	50

Unidentified peaks present in sample.

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ND : Not Detected

ug / L : microgram / liter (ppb)
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Sample **AB07426** **SB-13**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	1.7	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	10	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.73	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	8.3	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	64	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.57	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.55	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	11	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	5.1	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	27	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	11000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	79	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	200	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	1.2	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	14	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	1.0	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	0.12	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	14	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	110	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	75.8	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC-Analy	Completed				11/19/2007	3640	DT

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07427 SB-14

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/23/2007 **Analyst:** MF
Extraction Method: 3545 **Extraction Date:** 11/16/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	73.9			
SURROGATE	#Tetrachloro-m-xylene#	82.5			
72-54-8	4,4'-DDD	Not Detected	23		1.0
72-55-9	4,4'-DDE	Not Detected	23		1.0
50-29-3	4,4'-DDT	Not Detected	23		1.0
319-84-6	a-BHC	Not Detected	12		1.0
5103-71-9	a-Chlordane	Not Detected	23		1.0
309-00-2	Aldrin	Not Detected	23		1.0
12674-11-2	Aroclor 1016	Not Detected	120		1.0
11104-28-2	Aroclor 1221	Not Detected	120		1.0
11141-16-5	Aroclor 1232	Not Detected	120		1.0
53469-21-9	Aroclor 1242	Not Detected	120		1.0
12672-29-6	Aroclor 1248	Not Detected	120		1.0
11097-69-1	Aroclor 1254	Not Detected	120		1.0
11096-82-5	Aroclor 1260	Not Detected	120		1.0
37324-23-5	Aroclor 1262	Not Detected	120		1.0
11100-14-4	Aroclor 1268	Not Detected	120		1.0
319-85-7	b-BHC	Not Detected	23		1.0
319-86-8	d-BHC	Not Detected	23		1.0
60-57-1	Dieldrin	Not Detected	23		1.0
959-98-8	Endosulfan I	Not Detected	23		1.0
33213-65-9	Endosulfan II	Not Detected	23		1.0
1031-07-8	Endosulfan sulfate	Not Detected	23		1.0
72-20-8	Endrin	Not Detected	23		1.0
7421-93-4	Endrin aldehyde	Not Detected	23		1.0
53494-70-5	Endrin ketone	Not Detected	23		1.0
58-89-9	g-BHC (Lindane)	Not Detected	23		1.0
5103-74-2	g-Chlordane	Not Detected	23		1.0
76-44-8	Heptachlor	Not Detected	23		1.0
1024-57-3	Heptachlor epoxide	Not Detected	23		1.0
87-82-1	Hexabromobenzene	Not Detected	120		1.0
72-43-5	Methoxychlor	Not Detected	58		1.0
2385-85-5	Mirex	Not Detected	58		1.0
59080-40-9	PBB (BP-6)	Not Detected	290		1.0
8001-35-2	Toxaphene	Not Detected	200		1.0

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Sample Number: AB07427 SB-14

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
SURROGATE	#2-Fluorobiphenyl#	79.1			
SURROGATE	#2,4,6-Tribromophenol#	71.2			
SURROGATE	#2-Fluorophenol#	67.5			
SURROGATE	#Nitrobenzene - D5#	69.6			
SURROGATE	#Phenol - D6#	76.0			
SURROGATE	#p-Terphenyl-d14#	91.0			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	230		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	380		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	380		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	380		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	380		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	2000	Z	1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	290		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	290		1.0
91-58-7	2-Chloronaphthalene	Not Detected	230		1.0
95-57-8	2-Chlorophenol	Not Detected	380		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	2000	Z	1.0
91-57-6	2-Methylnaphthalene	160	290	T	1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	380		1.0
88-74-4	2-Nitroaniline	Not Detected	580		1.0
88-75-5	2-Nitrophenol	Not Detected	380		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	770		1.0
99-09-2	3-Nitroaniline	Not Detected	580		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	230		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	230		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	120		1.0
100-01-6	4-Nitroaniline	Not Detected	580	Z	1.0
100-02-7	4-Nitrophenol	Not Detected	2000	Z	1.0
83-32-9	Acenaphthene	Not Detected	120		1.0
208-96-8	Acenaphthylene	Not Detected	120		1.0
120-12-7	Anthracene	98	120	T	1.0
103-33-3	Azobenzene	Not Detected	230		1.0
56-55-3	Benzo[a]anthracene	340	120		1.0
50-32-8	Benzo[a]pyrene	310	230		1.0
205-99-2	Benzo[b]fluoranthene	470	230		1.0
191-24-2	Benzo[g,h,i]perylene	200	230	T	1.0
207-08-9	Benzo[k]fluoranthene	170	230	T	1.0
100-51-6	Benzyl Alcohol	Not Detected	2900		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	230		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	120		1.0
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	120		1.0

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Sample Number: AB07427 SB-14

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 12/03/2007 **Analyst:** SMH
Extraction Method: 3545 **Extraction Date:** 11/14/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	290		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	290		1.0
86-74-8	Carbazole	Not Detected	290		1.0
218-01-9	Chrysene	460	120		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	230		1.0
132-64-9	Dibenzofuran	Not Detected	290		1.0
84-66-2	Diethylphthalate	Not Detected	290		1.0
131-11-3	Dimethyl phthalate	Not Detected	290		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	290		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	290		1.0
206-44-0	Fluoranthene	720	120		1.0
86-73-7	Fluorene	Not Detected	120		1.0
118-74-1	Hexachlorobenzene	Not Detected	230		1.0
87-68-3	Hexachlorobutadiene	Not Detected	120	Z	1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	1200	5Z	1.0
67-72-1	Hexachloroethane	Not Detected	120		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	180	230	T	1.0
78-59-1	Isophorone	Not Detected	120		1.0
91-20-3	Naphthalene	140	120		1.0
98-95-3	Nitrobenzene	Not Detected	230		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	290		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	230		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	230		1.0
87-86-5	Pentachlorophenol	Not Detected	2000	Z=800	1.0
85-01-8	Phenanthrene	490	120		1.0
108-95-2	Phenol	Not Detected	380		1.0
129-00-0	Pyrene	740	120		1.0

Probable petroleum product(s) present.

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10.7			
SURROGATE	#Bromofluorobenzene#	131			
SURROGATE	#Dibromofluoromethane#	150			
SURROGATE	#Toluene-d8#	133			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	68		50
71-55-6	1,1,1-Trichloroethane	Not Detected	68		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	68		50

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Sample Number: AB07427 SB-14

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
79-00-5	1,1,2-Trichloroethane	Not Detected	68		50
75-34-3	1,1-Dichloroethane	Not Detected	68		50
75-35-4	1,1-Dichloroethylene	Not Detected	68		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	340		50
96-18-4	1,2,3-Trichloropropane	Not Detected	68		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	68		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	340		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	68		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	340		50
106-93-4	1,2-Dibromoethane	Not Detected	68	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	68		50
107-06-2	1,2-Dichloroethane	Not Detected	68		50
78-87-5	1,2-Dichloropropane	Not Detected	68		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	68		50
541-73-1	1,3-Dichlorobenzene	Not Detected	68		50
106-46-7	1,4-Dichlorobenzene	Not Detected	68		50
78-93-3	2-Butanone (MEK)	Not Detected	340	7	50
591-78-6	2-Hexanone	Not Detected	340	7	50
91-57-6	2-Methylnaphthalene	Not Detected	340	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1400		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	340		50
107-13-1	Acrylonitrile	Not Detected	340	Z	50
71-43-2	Benzene	Not Detected	68		50
108-86-1	Bromobenzene	Not Detected	68		50
74-97-5	Bromochloromethane	Not Detected	68		50
75-27-4	Bromodichloromethane	Not Detected	68		50
75-25-2	Bromoform	Not Detected	68		50
74-83-9	Bromomethane	Not Detected	270		50
75-15-0	Carbon disulfide	Not Detected	68		50
56-23-5	Carbon tetrachloride	Not Detected	68		50
108-90-7	Chlorobenzene	Not Detected	68		50
75-00-3	Chloroethane	Not Detected	340		50
67-66-3	Chloroform	Not Detected	68		50
74-87-3	Chloromethane	Not Detected	340		50
156-59-2	cis-1,2-Dichloroethylene	Not Detected	68		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	68		50
110-82-7	Cyclohexane	Not Detected	340		50
124-48-1	Dibromochloromethane	Not Detected	68		50
74-95-3	Dibromomethane	Not Detected	68		50
75-71-8	Dichlorodifluoromethane	Not Detected	340		50
60-29-7	Diethyl ether	Not Detected	270		50

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Sample Number: AB07427 SB-14

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
108-20-3	Diisopropyl Ether	Not Detected	340		50
100-41-4	Ethylbenzene	Not Detected	68		50
637-92-3	Ethyltertiarybutylether	Not Detected	340		50
67-72-1	Hexachloroethane	Not Detected	340		50
98-82-8	Isopropylbenzene	Not Detected	68		50
108383,106423	m & p - Xylene	Not Detected	140		50
74-88-4	Methyl iodide	Not Detected	68		50
75-09-2	Methylene chloride	Not Detected	140		50
1634-04-4	Methyltertiarybutylether	Not Detected	68		50
91-20-3	Naphthalene	Not Detected	340	X	50
104-51-8	n-Butylbenzene	150	68		50
103-65-1	n-Propylbenzene	150	68		50
95-47-6	o-Xylene	Not Detected	68		50
99-87-6	p-Isopropyl toluene	Not Detected	68		50
135-98-8	sec-Butylbenzene	Not Detected	68		50
100-42-5	Styrene	Not Detected	68		50
98-06-6	tert-Butylbenzene	Not Detected	68		50
75-65-0	tertiary Butyl Alcohol	Not Detected	3400		50
994-05-8	tertiaryAmylmethylether	Not Detected	340		50
127-18-4	Tetrachloroethylene	Not Detected	68		50
109-99-9	Tetrahydrofuran	Not Detected	340		50
108-88-3	Toluene	Not Detected	68		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	68		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	68		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	340	Z	50
79-01-6	Trichloroethylene	Not Detected	68		50
75-69-4	Trichlorofluoromethane	Not Detected	68		50
75-01-4	Vinyl chloride	Not Detected	68	Z	50

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Sample **AB07427** **SB-14**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
57-12-5	Cyanide - Sediment	.25	mg/Kg dry	0.1		11/16/2007	9010	RG
	Cyanide-Extraction	Completed				11/15/2007	9013	RG
	Digest Mercury - Sediment	Completed				11/26/2007	7471	TK2
7439-97-6	Mercury - Sediment	.06	mg/Kg dry	0.05		11/27/2007	7471	TS
7440-36-0	Antimony - Sediment	0.47	mg/Kg dry	0.3		11/28/2007	6020	KS
7440-38-2	Arsenic - Sediment	6.4	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-39-3	Barium - Sediment	74	mg/Kg dry	1		11/30/2007	6020	KS
7440-41-7	Beryllium - Sediment	0.53	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-43-9	Cadmium - Sediment	0.23	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-47-3	Chromium - Sediment	8.4	mg/Kg dry	2		11/30/2007	6020	KS
7440-48-4	Cobalt - Sediment	5.4	mg/Kg dry	.5		11/30/2007	6020	KS
7440-50-8	Copper - Sediment	21	mg/Kg dry	1		11/30/2007	6020	KS
	Digest Antimony - Sediment	Completed				11/27/2007	3050	RG
	Digest Metals - Sediment	Completed				11/27/2007	3050	RG
7439-89-6	Iron - Sediment	13000	mg/Kg dry	50	D	11/28/2007	6010	WN
7439-92-1	Lead - Sediment	100	mg/Kg dry	1		11/30/2007	6020	KS
7439-96-5	Manganese - Sediment	140	mg/Kg dry	1		11/30/2007	6020	KS
7439-98-7	Molybdenum - Sediment	ND	mg/Kg dry	1		11/30/2007	6020	KS
7440-02-0	Nickel - Sediment	12	mg/Kg dry	1		11/30/2007	6020	KS
7782-49-2	Selenium - Sediment	0.79	mg/Kg dry	0.2		11/30/2007	6020	KS
7440-22-4	Silver - Sediment	ND	mg/Kg dry	0.1		11/30/2007	6020	KS
7440-28-0	Thallium - Sediment	ND	mg/Kg dry	0.5		11/30/2007	6020	KS
7440-62-2	Vanadium - Sediment	13	mg/Kg dry	1		11/30/2007	6020	KS
7440-66-6	Zinc - Sediment	86	mg/Kg dry	1		11/30/2007	6020	KS
	% Total Solids	86.2	%	0.1		11/08/2007		DB
	Drying and Grinding - Sediment	Completed				11/09/2007		DB
	Gel Permeation Cleanup-Pesticide/PCI	Completed				11/20/2007	3640	DT
	Gel Permeation Cleanup-SVOC Analy	Completed				11/19/2007	3640	DT

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ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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TEL: (517) 335-9800
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Sample Number: AB07428 MB1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10			
SURROGATE	#Bromofluorobenzene#	112			
SURROGATE	#Dibromofluoromethane#	127			
SURROGATE	#Toluene-d8#	116			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	200		50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Organic Unit Mgr: Carol Smith
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Sample Number: AB07428 MB1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	200		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	100		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary-Butyl Alcohol	Not Detected	2500		50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50	Z	50

Sample AB07428 MB1

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	% Total Solids	100	%	0.1		11/08/2007		DB

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07429 MB2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	10			
SURROGATE	#Bromofluorobenzene#	113			
SURROGATE	#Dibromofluoromethane#	129			
SURROGATE	#Toluene-d8#	116			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50	Z	50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250	7	50
591-78-6	2-Hexanone	Not Detected	250	7	50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	200		50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
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Sample Number: AB07429 MB2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/13/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	200		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383-106423	m-&p-Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	100		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary-Butyl Alcohol	Not Detected	2500		50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50	Z	50

Sample AB07429 MB2

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	% Total Solids	100	%	0.1		11/08/2007		DB

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Sample Number: AB08297 SB-08 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.72			
SURROGATE	#Bromofluorobenzene#	115			
SURROGATE	#Dibromofluoromethane#	147			
SURROGATE	#Toluene-d8#	128			
630-20-6	1,1,1,2-Tetrachloroethane	4900	93		50
71-55-6	1,1,1-Trichloroethane	5400	93	4	50
79-34-5	1,1,2,2-Tetrachloroethane	4900	93		50
79-00-5	1,1,2-Trichloroethane	4800	93		50
75-34-3	1,1-Dichloroethane	4800	93		50
75-35-4	1,1-Dichloroethylene	5200	93		50
87-61-6	1,2,3-Trichlorobenzene	4400	470		50
96-18-4	1,2,3-Trichloropropane	5100	93		50
526-73-8	1,2,3-Trimethylbenzene	4800	93		50
120-82-1	1,2,4-Trichlorobenzene	4600	470		50
95-63-6	1,2,4-Trimethylbenzene	4800	93		50
96-12-8	1,2-Dibromo-3-chloropropane	5100	470		50
106-93-4	1,2-Dibromoethane	5000	93	Z	50
95-50-1	1,2-Dichlorobenzene	4700	93		50
107-06-2	1,2-Dichloroethane	5600	93	4	50
78-87-5	1,2-Dichloropropane	4700	93		50
108-67-8	1,3,5-Trimethylbenzene	4700	93		50
541-73-1	1,3-Dichlorobenzene	4600	93		50
106-46-7	1,4-Dichlorobenzene	4500	93		50
78-93-3	2-Butanone (MEK)	4800	470		50
591-78-6	2-Hexanone	4900	470		50
91-57-6	2-Methylnaphthalene	5200	470	X	50
67-64-1	2-Propanone (acetone)	4600	1900		50
108-10-1	4-Methyl-2-pentanone (MIBK)	5200	470		50
107-13-1	Acrylonitrile	4400	470	Z	50
71-43-2	Benzene	4800	93		50
108-86-1	Bromobenzene	4900	93		50
74-97-5	Bromochloromethane	4900	93		50
75-27-4	Bromodichloromethane	5200	93		50
75-25-2	Bromoform	4500	93		50
74-83-9	Bromomethane	5100	370		50
75-15-0	Carbon disulfide	4500	93		50
56-23-5	Carbon tetrachloride	5200	93		50
108-90-7	Chlorobenzene	4600	93		50
75-00-3	Chloroethane	6000	470		50
67-66-3	Chloroform	5000	93		50
74-87-3	Chloromethane	4400	470		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Sample Number: AB08297 SB-08 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	4900	93		50
10061-01-5	cis-1,3-Dichloropropylene	4900	93		50
110-82-7	Cyclohexane	4700	470		50
124-48-1	Dibromochloromethane	5000	93		50
74-95-3	Dibromomethane	5100	93		50
75-71-8	Dichlorodifluoromethane	4400	470		50
60-29-7	Diethyl ether	5200	470		50
108-20-3	Diisopropyl Ether	4800	470		50
100-41-4	Ethylbenzene	4700	93		50
637-92-3	Ethyltertiarybutylether	4900	470		50
67-72-1	Hexachloroethane	4700	470		50
98-82-8	Isopropylbenzene	4700	93		50
108383,106423	m & p - Xylene	9500	190		50
74-88-4	Methyl iodide	3800	93		50
75-09-2	Methylene chloride	5000	190		50
1634-04-4	Methyltertiarybutylether	4800	93		50
91-20-3	Naphthalene	4800	470	X	50
104-51-8	n-Butylbenzene	4700	93		50
103-65-1	n-Propylbenzene	4600	93		50
95-47-6	o-Xylene	4800	93		50
99-87-6	p-Isopropyl toluene	4600	93		50
135-98-8	sec-Butylbenzene	4600	93		50
100-42-5	Styrene	4600	93		50
98-06-6	tert-Butylbenzene	4700	93		50
75-65-0	tertiary Butyl Alcohol	23000	4700		50
994-05-8	tertiaryAmylmethylether	5000	470		50
127-18-4	Tetrachloroethylene	4500	93		50
109-99-9	Tetrahydrofuran	4700	470		50
108-88-3	Toluene	4600	93		50
156-60-5	trans-1,2-Dichloroethylene	4600	93		50
10061-02-6	trans-1,3-Dichloropropylene	5100	93		50
110-57-6	trans-1,4-Dichloro-2-butene	5300	470	Z	50
79-01-6	Trichloroethylene	4700	93		50
75-69-4	Trichlorofluoromethane	6400	93		50
75-01-4	Vinyl chloride	4700	93	Z	50

Sample is a matrix spike.
Compounds spiked at 4670 ug/Kg, except tertiary butyl alcohol spiked at 23400 ug/Kg & m&p-xylene spiked at 9350 ug/Kg.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample **AB08297** **SB-08 MS**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	% Total Solids	70.7	%	0.1		11/08/2007		DB

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB08298 SB-08 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
	##Weight of sample(grams)	9.72			
SURROGATE	#Bromofluorobenzene#	111			
SURROGATE	#Dibromofluoromethane#	142			
SURROGATE	#Toluene-d8#	122			
630-20-6	1,1,1,2-Tetrachloroethane	4700	93		50
71-55-6	1,1,1-Trichloroethane	5100	93		50
79-34-5	1,1,2,2-Tetrachloroethane	4900	93		50
79-00-5	1,1,2-Trichloroethane	4700	93		50
75-34-3	1,1-Dichloroethane	4600	93		50
75-35-4	1,1-Dichloroethylene	4900	93		50
87-61-6	1,2,3-Trichlorobenzene	4600	470		50
96-18-4	1,2,3-Trichloropropane	5200	93		50
526-73-8	1,2,3-Trimethylbenzene	4600	93		50
120-82-1	1,2,4-Trichlorobenzene	4500	470		50
95-63-6	1,2,4-Trimethylbenzene	4600	93		50
96-12-8	1,2-Dibromo-3-chloropropane	5200	470		50
106-93-4	1,2-Dibromoethane	4800	93	Z	50
95-50-1	1,2-Dichlorobenzene	4500	93		50
107-06-2	1,2-Dichloroethane	5400	93		50
78-87-5	1,2-Dichloropropane	4600	93		50
108-67-8	1,3,5-Trimethylbenzene	4500	93		50
541-73-1	1,3-Dichlorobenzene	4500	93		50
106-46-7	1,4-Dichlorobenzene	4400	93		50
78-93-3	2-Butanone (MEK)	4900	470		50
591-78-6	2-Hexanone	4900	470		50
91-57-6	2-Methylnaphthalene	5100	470	X	50
67-64-1	2-Propanone (acetone)	4600	1900		50
108-10-1	4-Methyl-2-pentanone (MIBK)	5200	470		50
107-13-1	Acrylonitrile	4300	470	Z	50
71-43-2	Benzene	4600	93		50
108-86-1	Bromobenzene	4700	93		50
74-97-5	Bromochloromethane	4800	93		50
75-27-4	Bromodichloromethane	5100	93		50
75-25-2	Bromoform	4400	93		50
74-83-9	Bromomethane	4900	370		50
75-15-0	Carbon disulfide	4300	93		50
56-23-5	Carbon tetrachloride	5000	93		50
108-90-7	Chlorobenzene	4400	93		50
75-00-3	Chloroethane	5700	470		50
67-66-3	Chloroform	4900	93		50
74-87-3	Chloromethane	4200	470		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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FAX: (517) 335-9600

Sample Number: AB08298 SB-08 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** KCL
Extraction Method: 5035 **Extraction Date:** 11/08/2007 **Qualifier:**

CAS #	Compound	Result ug/Kg dry	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	4700	93		50
10061-01-5	cis-1,3-Dichloropropylene	4700	93		50
110-82-7	Cyclohexane	4500	470		50
124-48-1	Dibromochloromethane	4900	93		50
74-95-3	Dibromomethane	4900	93		50
75-71-8	Dichlorodifluoromethane	4200	470		50
60-29-7	Diethyl ether	5100	470		50
108-20-3	Diisopropyl Ether	4600	470		50
100-41-4	Ethylbenzene	4500	93		50
637-92-3	Ethyltertiarybutylether	4800	470		50
67-72-1	Hexachloroethane	4600	470		50
98-82-8	Isopropylbenzene	4500	93		50
108383-106423	m & p - Xylene	9100	190		50
74-88-4	Methyl iodide	2300	93		50
75-09-2	Methylene chloride	4600	190		50
1634-04-4	Methyltertiarybutylether	4600	93		50
91-20-3	Naphthalene	4800	470	X	50
104-51-8	n-Butylbenzene	4500	93		50
103-65-1	n-Propylbenzene	4500	93		50
95-47-6	o-Xylene	4600	93		50
99-87-6	p-Isopropyltoluene	4400	93		50
135-98-8	sec-Butylbenzene	4500	93		50
100-42-5	Styrene	4400	93		50
98-06-6	tert-Butylbenzene	4500	93		50
75-65-0	tertiary Butyl Alcohol	23000	4700		50
994-05-8	tertiaryAmylmethylether	4900	470		50
127-18-4	Tetrachloroethylene	4200	93		50
109-99-9	Tetrahydrofuran	4700	470		50
108-88-3	Toluene	4400	93		50
156-60-5	trans-1,2-Dichloroethylene	4400	93		50
10061-02-6	trans-1,3-Dichloropropylene	5000	93		50
110-57-6	trans-1,4-Dichloro-2-butene	5200	470	Z	50
79-01-6	Trichloroethylene	4500	93		50
75-69-4	Trichlorofluoromethane	5900	93		50
75-01-4	Vinyl chloride	4400	93	Z	50

Sample is a matrix spike.
Compounds spiked at 4670 ug/Kg, except tertiary butyl alcohol spiked at 23400 ug/Kg & m&p-xylene spiked at 9350 ug/Kg.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample **AB08298** **SB-08 MSD**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	% Total Solids	70.7	%	0.1		11/08/2007		DB

Qualifier Code	Qualifier Description
1	Result(s) and RL(s) are estimated due to low surrogate recovery.
2	Result is estimated due to high surrogate recovery.
3	Result(s) and RL(s) are estimated due to low matrix spike recovery.
4	Result is estimated due to high matrix spike recovery.
5	Result and RL are estimated due to low continuing calibration standard criteria failure.
6	Result is estimated due to high continuing calibration standard criteria failure.
7	Result(s) and RL(s) are estimated due to poor precision.
8	Result(s) and RL(s) are estimated due to low recovery of batch QC.
9	Result outside QC acceptance criteria.
A	Value reported is the mean of two or more determinations.
C	Value calculated from other independent parameters.
D	Analyte value quantified from a dilution(s); reporting limit (RL) raised.
E	Result is estimated due to high recovery of batch QC.
F	Amenable cyanide was not analyzed due to low level of total cyanide.
G	Result and RL are estimated due to initial calibration standard criteria failure.
H	Recommended laboratory holding time was exceeded.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
J	Analyte was positively identified. Value is an estimate.
JA	Result is estimated due to multiple Aroclors present.
JC	Result is estimated since confirmation analysis did not meet acceptance criteria
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
K	RL(s) raised due to matrix interferences.
KR	RL(s) raised due to low sample volume submitted.
KS	RL(s) raised due to low total solids.
KW	RL(s) raised due to light sample weight.
LB	Reported library search compounds are tentative identifications with estimated concentrations.
M	The level of the method preparation blank (MPB) is reported in the qualifier column.
N	Non-homogeneous sample made analysis of sample questionable.
O	Result and RL estimated due to analysis from an open vial.
P	Recommended sample collection/preservation technique not used; reported result(s) is an estimate.
Q	Quantity of sample insufficient to perform analyses requested.
R	Result confirmed by re-extraction and analysis.
S	Supernatant analyzed.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
W	Reported value is less than the method detection limit (MDL).
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200°C. 2-Methylnaphthalene & naphthalene have boiling points above 200°C and are better suited to analysis by methods 8270 or 625 as semivolatile organics.
PI	Possible interference may have affected the accuracy of the laboratory result
Z	Result reported below the RL to meet the TDL in RRD Op Memo 2 (10/22/04) multiplied by applicable dilution factor.

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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Division: RRD
Report to: JOHN SPIELBERG
MDEQ-RRD-SUPERFUND
CONSTITUTION HALL
525 W. ALLEGAN, LANSING, MI 48909

Total: $7,377.00

Lab Work Order # : 71100049
Work Site ID : MOB00000146
Site Name : MARITIME HERITAGE CENTEF
Received: 11/08/2007
Reported: 12/05/2007
Collected By: JOHN SPIELBERG

Samples Received :

No:	Sample ID	Sample Description	Matrix:	Collection Date
01	AB07389	TMW-2	WATER	11/06/2007
02	AB07390	TMW-3	WATER	11/06/2007
03	AB07391	TMW-3 MS	WATER	11/06/2007
04	AB07392	TMW-3 MSD	WATER	11/06/2007
05	AB07393	TMW-4	WATER	11/05/2007
06	AB07394	TMW-5	WATER	11/06/2007
07	AB07395	TMW-6	WATER	11/06/2007
08	AB07396	TMW-7	WATER	11/06/2007
09	AB07397	TMW-8	WATER	11/06/2007
10	AB07398	TP	WATER	11/05/2007

I certify that the analysis performed by the MDEQ Environmental Laboratory are accurate and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Bob Avery, Laboratory Director

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Sample Number: AB07389 TMW-2

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 970

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	44.3			
SURROGATE	#Tetrachloro-m-xylene#	30.0			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.10		1.0
11104-28-2	Aroclor 1221	Not Detected	0.10		1.0
11141-16-5	Aroclor 1232	Not Detected	0.10		1.0
53469-21-9	Aroclor 1242	Not Detected	0.10		1.0
12672-29-6	Aroclor 1248	Not Detected	0.10		1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.10		1.0

CAS# : Chemical Abstract Service Registry Number
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Sample Number: AB07389 TMW-2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.3			
SURROGATE	#Dibromofluoromethane#	102			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

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Sample Number: AB07389 TMW-2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	4.7	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07389 TMW-2

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	64.2			
SURROGATE	#2,4,6-Tribromophenol#	89.8			
SURROGATE	#2-Fluorophenol#	33.9			
SURROGATE	#Nitrobenzene - D5#	59.6			
SURROGATE	#Phenol - D6#	24.9			
SURROGATE	#p-Terphenyl-d14#	91.3			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.1		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.0		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	10		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.1		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	25		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.1		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.1		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.0		1.0
95-57-8	2-Chlorophenol	Not Detected	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	20		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.1		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	10		1.0
88-74-4	2-Nitroaniline	Not Detected	20		1.0
88-75-5	2-Nitrophenol	Not Detected	5.1		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	20		1.0
99-09-2	3-Nitroaniline	Not Detected	20		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.1		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.0		1.0
100-01-6	4-Nitroaniline	Not Detected	20		1.0
100-02-7	4-Nitrophenol	Not Detected	25		1.0
83-32-9	Acenaphthene	Not Detected	1.0		1.0
208-96-8	Acenaphthylene	Not Detected	1.0		1.0
62-53-3	Aniline	Not Detected	4.0		1.0
120-12-7	Anthracene	Not Detected	1.0		1.0
103-33-3	Azobenzene	Not Detected	2.0		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.0		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.0		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.0		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.0		1.0
100-51-6	Benzyl Alcohol	Not Detected	51		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Systems Mgmt Unit: George Krisztian

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Sample Number: AB07389 TMW-2

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.1		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.1		1.0
86-74-8	Carbazole	Not Detected	5.1		1.0
218-01-9	Chrysene	Not Detected	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.0		1.0
132-64-9	Dibenzofuran	Not Detected	4.0		1.0
84-66-2	Diethylphthalate	Not Detected	5.1		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.1		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.1		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.1		1.0
206-44-0	Fluoranthene	Not Detected	1.0		1.0
86-73-7	Fluorene	Not Detected	1.0		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.0		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	10	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.0		1.0
78-59-1	Isophorone	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	1.0		1.0
98-95-3	Nitrobenzene	Not Detected	2.0		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.1		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.0		1.0
87-86-5	Pentachlorophenol	Not Detected	20		1.0
85-01-8	Phenanthrene	Not Detected	1.0		1.0
108-95-2	Phenol	Not Detected	5.1		1.0
129-00-0	Pyrene	Not Detected	1.0		1.0
110-86-1	Pyridine	Not Detected	20		1.0

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Sample AB07389 TMW-2

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.16	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	ND	mg/L	0.005		11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	68	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	850	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	4.5	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	ND	µg/L	10		11/27/2007	6020/200.8	KS
7439-89-6	Iron - Total	1200	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07390 TMW-3

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	23.2			
SURROGATE	#Tetrachloro-m-xylene#	27.5			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.10		1.0
11104-28-2	Aroclor 1221	Not Detected	0.19	K	1.0
11141-16-5	Aroclor 1232	Not Detected	0.10		1.0
53469-21-9	Aroclor 1242	Not Detected	0.10		1.0
12672-29-6	Aroclor 1248	Not Detected	0.10		1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.10		1.0

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Sample Number: AB07390 TMW-3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.6			
SURROGATE	#Dibromofluoromethane#	103			
SURROGATE	#Toluene-d8#	98.5			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	1.9	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	5.6	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	2.3	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	5.9	5.0	6	1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	36	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	6.0	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0	5	1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07390 TMW-3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	1.5	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	6.9	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0	5	1.0
75-09-2	Methylene chloride	Not Detected	5.0	7	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	2.7	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	4.3	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07390 TMW-3

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	61.9			
SURROGATE	#2,4,6-Tribromophenol#	98.7			
SURROGATE	#2-Fluorophenol#	26.7			
SURROGATE	#Nitrobenzene - D5#	52.6			
SURROGATE	#Phenol - D6#	22.5			
SURROGATE	#p-Terphenyl-d14#	96.9			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.0		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.0		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	10		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.0		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	25		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.0		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.0		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.0		1.0
95-57-8	2-Chlorophenol	Not Detected	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	20		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	10		1.0
88-74-4	2-Nitroaniline	Not Detected	20		1.0
88-75-5	2-Nitrophenol	Not Detected	5.0		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	20		1.0
99-09-2	3-Nitroaniline	Not Detected	20		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.0		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.0		1.0
100-01-6	4-Nitroaniline	Not Detected	20	5	1.0
100-02-7	4-Nitrophenol	Not Detected	25		1.0
83-32-9	Acenaphthene	Not Detected	1.0		1.0
208-96-8	Acenaphthylene	Not Detected	1.0		1.0
62-53-3	Aniline	Not Detected	4.0		1.0
120-12-7	Anthracene	Not Detected	1.0		1.0
103-33-3	Azobenzene	Not Detected	2.0		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.0		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.0		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.0		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.0		1.0
100-51-6	Benzyl Alcohol	Not Detected	50	5	1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.0		1.0

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Sample Number: AB07390 TMW-3

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.0		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.0		1.0
86-74-8	Carbazole	Not Detected	5.0		1.0
218-01-9	Chrysene	Not Detected	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.0		1.0
132-64-9	Dibenzofuran	Not Detected	4.0		1.0
84-66-2	Diethylphthalate	Not Detected	5.0		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.0		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.0		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.0		1.0
206-44-0	Fluoranthene	Not Detected	1.0		1.0
86-73-7	Fluorene	Not Detected	1.0		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.0		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	10	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.0		1.0
78-59-1	Isophorone	Not Detected	1.0		1.0
91-20-3	Naphthalene	2.0	1.0		1.0
98-95-3	Nitrobenzene	Not Detected	2.0		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.0		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.0		1.0
87-86-5	Pentachlorophenol	Not Detected	20		1.0
85-01-8	Phenanthrene	Not Detected	1.0		1.0
108-95-2	Phenol	80	5.0		1.0
129-00-0	Pyrene	Not Detected	1.0		1.0
110-86-1	Pyridine	Not Detected	20		1.0

Unidentified peaks present in sample.

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample AB07390 TMW-3

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.03	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	2.5	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	31	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	18	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	2.6	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	16	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	21	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	55	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	34	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	31	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1	3	11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	21	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	52	µg/L	10		11/19/2007	6020/200.8	KS
7439-89-6	Iron - Total	4600	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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Sample Number: AB07391 TMW-3 MS

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 480

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	39.7			
SURROGATE	#Tetrachloro-m-xylene#	39.9			
72-54-8	4,4'-DDD	0.38	0.04		1.0
72-55-9	4,4'-DDE	0.26	0.04		1.0
50-29-3	4,4'-DDT	0.32	0.04		1.0
319-84-6	a-BHC	0.28	0.04		1.0
5103-71-9	a-Chlordane	0.29	0.02		1.0
309-00-2	Aldrin	0.25	0.02		1.0
12674-11-2	Aroclor 1016	Not Detected	0.21		1.0
11104-28-2	Aroclor 1221	Not Detected	0.21		1.0
11141-16-5	Aroclor 1232	Not Detected	0.21		1.0
53469-21-9	Aroclor 1242	Not Detected	0.21		1.0
12672-29-6	Aroclor 1248	Not Detected	0.21		1.0
11097-69-1	Aroclor 1254	Not Detected	0.21		1.0
11096-82-5	Aroclor 1260	Not Detected	0.21		1.0
37324-23-5	Aroclor 1262	Not Detected	0.21		1.0
11100-14-4	Aroclor 1268	Not Detected	0.21		1.0
319-85-7	b-BHC	0.31	0.04		1.0
319-86-8	d-BHC	0.32	0.04		1.0
60-57-1	Dieldrin	0.36	0.04		1.0
959-98-8	Endosulfan I	0.36	0.04		1.0
33213-65-9	Endosulfan II	0.35	0.06		1.0
1031-07-8	Endosulfan sulfate	0.37	0.1		1.0
72-20-8	Endrin	0.40	0.04		1.0
7421-93-4	Endrin aldehyde	0.28	0.04		1.0
53494-70-5	Endrin ketone	0.41	0.04		1.0
58-89-9	g-BHC (Lindane)	0.28	0.04		1.0
5103-74-2	g-Chlordane	0.26	0.02		1.0
76-44-8	Heptachlor	0.28	0.02		1.0
1024-57-3	Heptachlor epoxide	0.36	0.02		1.0
87-82-1	Hexabromobenzene	0.27	0.04		1.0
72-43-5	Methoxychlor	0.42	0.1		1.0
2385-85-5	Mirex	0.24	0.04		1.0
59080-40-9	PBB (BP-6)	0.17	0.1		1.0
8001-35-2	Toxaphene	Not Detected	0.21		1.0

Sample is a matrix spike.
Pesticides are spiked at 0.42 ug/L.

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Sample Number: AB07391 TMW-3 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	95.9			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	99.5			
630-20-6	1,1,1,2-Tetrachloroethane	51	1.0		1.0
71-55-6	1,1,1-Trichloroethane	51	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	54	1.0		1.0
79-00-5	1,1,2-Trichloroethane	54	1.0		1.0
75-34-3	1,1-Dichloroethane	53	1.0		1.0
75-35-4	1,1-Dichloroethylene	42	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	50	5.0		1.0
96-18-4	1,2,3-Trichloropropane	53	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	50	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	53	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	54	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	55	5.0		1.0
106-93-4	1,2-Dibromoethane	50	1.0		1.0
95-50-1	1,2-Dichlorobenzene	51	1.0		1.0
107-06-2	1,2-Dichloroethane	51	1.0		1.0
78-87-5	1,2-Dichloropropane	54	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	51	1.0		1.0
541-73-1	1,3-Dichlorobenzene	49	1.0		1.0
106-46-7	1,4-Dichlorobenzene	50	1.0		1.0
78-93-3	2-Butanone (MEK)	53	5.0	6	1.0
591-78-6	2-Hexanone	53	5.0	6	1.0
91-57-6	2-Methylnaphthalene	55	5.0	X	1.0
67-64-1	2-Propanone (acetone)	80	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	58	5.0		1.0
107-13-1	Acrylonitrile	57	5.0	Z	1.0
71-43-2	Benzene	59	1.0		1.0
108-86-1	Bromobenzene	49	1.0		1.0
74-97-5	Bromochloromethane	45	1.0		1.0
75-27-4	Bromodichloromethane	51	1.0		1.0
75-25-2	Bromoform	49	1.0		1.0
74-83-9	Bromomethane	33	5.0	5	1.0
75-15-0	Carbon disulfide	42	1.0		1.0
56-23-5	Carbon tetrachloride	46	1.0		1.0
108-90-7	Chlorobenzene	51	1.0		1.0
75-00-3	Chloroethane	99	5.0		1.0
67-66-3	Chloroform	51	1.0		1.0
74-87-3	Chloromethane	43	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	50	1.0		1.0

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Sample Number: AB07391 TMW-3 MS

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	50	1.0		1.0
110-82-7	Cyclohexane	56	5.0		1.0
124-48-1	Dibromochloromethane	51	1.0		1.0
74-95-3	Dibromomethane	49	1.0		1.0
75-71-8	Dichlorodifluoromethane	42	5.0	6	1.0
60-29-7	Diethyl ether	51	5.0		1.0
108-20-3	Diisopropyl Ether	52	5.0		1.0
100-41-4	Ethylbenzene	52	1.0		1.0
637-92-3	Ethyltertiarybutylether	52	5.0		1.0
67-72-1	Hexachloroethane	45	5.0		1.0
98-82-8	Isopropylbenzene	49	1.0		1.0
108383,106423	m & p - Xylene	110	2.0		1.0
74-88-4	Methyl iodide	36	1.0	5	1.0
75-09-2	Methylene chloride	50	5.0	7	1.0
1634-04-4	Methyltertiarybutylether	54	1.0		1.0
91-20-3	Naphthalene	56	5.0	X	1.0
104-51-8	n-Butylbenzene	49	1.0		1.0
103-65-1	n-Propylbenzene	49	1.0		1.0
95-47-6	o-Xylene	53	1.0		1.0
99-87-6	p-Isopropyl toluene	49	1.0		1.0
135-98-8	sec-Butylbenzene	48	1.0		1.0
100-42-5	Styrene	50	1.0		1.0
98-06-6	tert-Butylbenzene	51	1.0		1.0
75-65-0	tertiary Butyl Alcohol	260	50		1.0
994-05-8	tertiaryAmylmethylether	52	5.0		1.0
127-18-4	Tetrachloroethylene	52	1.0		1.0
109-99-9	Tetrahydrofuran	57	5.0		1.0
108-88-3	Toluene	56	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	51	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	50	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	48	5.0	Z	1.0
79-01-6	Trichloroethylene	53	1.0		1.0
75-69-4	Trichlorofluoromethane	50	1.0		1.0
75-01-4	Vinyl chloride	48	1.0		1.0

Sample is a matrix spike.
Compounds spiked at 50 ug/L, except tertiary butyl alcohol spiked at 250 ug/L & m&p-xylene spiked at 100 ug/L.

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Sample Number: AB07391 TMW-3 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	66.4			
SURROGATE	#2,4,6-Tribromophenol#	97.4			
SURROGATE	#2-Fluorophenol#	33.1			
SURROGATE	#Nitrobenzene - D5#	61.7			
SURROGATE	#Phenol - D6#	24.3			
SURROGATE	#p-Terphenyl-d14#	102			
120-82-1	1,2,4-Trichlorobenzene	27	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	87	5.0		1.0
88-06-2	2,4,6-Trichlorophenol	79	4.0		1.0
120-83-2	2,4-Dichlorophenol	74	10		1.0
105-67-9	2,4-Dimethylphenol	80	5.0		1.0
51-28-5	2,4-Dinitrophenol	89	25		1.0
121-14-2	2,4-Dinitrotoluene	41	5.0		1.0
606-20-2	2,6-Dinitrotoluene	42	5.0		1.0
91-58-7	2-Chloronaphthalene	33	2.0		1.0
95-57-8	2-Chlorophenol	60	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	96	20		1.0
91-57-6	2-Methylnaphthalene	31	5.0		1.0
95-48-7	2-Methylphenol (o-Cresol)	61	10		1.0
88-74-4	2-Nitroaniline	42	20		1.0
88-75-5	2-Nitrophenol	66	5.0		1.0
108394,106445	3 & 4-Methylphenol	62	20		1.0
99-09-2	3-Nitroaniline	36	20		1.0
101-55-3	4-Bromophenyl phenyl ether	44	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	85	5.0		1.0
7005-72-3	4-Chlorodiphenylether	33	1.0		1.0
100-01-6	4-Nitroaniline	31	20	5	1.0
100-02-7	4-Nitrophenol	33	25		1.0
83-32-9	Acenaphthene	37	1.0		1.0
208-96-8	Acenaphthylene	41	1.0		1.0
62-53-3	Aniline	11	4.0		1.0
120-12-7	Anthracene	42	1.0		1.0
103-33-3	Azobenzene	39	2.0		1.0
56-55-3	Benzo[a]anthracene	43	1.0		1.0
50-32-8	Benzo[a]pyrene	43	1.0		1.0
205-99-2	Benzo[b]fluoranthene	42	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	34	1.0		1.0
207-08-9	Benzo[k]fluoranthene	41	1.0		1.0
100-51-6	Benzyl Alcohol	59	50	5	1.0
111-91-1	Bis(2-chloroethoxy)methane	34	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	30	1.0		1.0

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Sample Number: AB07391 TMW-3 MS

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	31	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	37	5.0		1.0
85-68-7	Butyl benzyl phthalate	47	5.0		1.0
86-74-8	Carbazole	39	5.0		1.0
218-01-9	Chrysene	43	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	36	2.0		1.0
132-64-9	Dibenzofuran	35	4.0		1.0
84-66-2	Diethylphthalate	41	5.0		1.0
131-11-3	Dimethyl phthalate	41	5.0		1.0
84-74-2	Di-n-butyl phthalate	40	5.0		1.0
117-84-0	Di-n-octyl phthalate	37	5.0		1.0
206-44-0	Fluoranthene	41	1.0		1.0
86-73-7	Fluorene	33	1.0		1.0
118-74-1	Hexachlorobenzene	44	1.0		1.0
87-68-3	Hexachlorobutadiene	25	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	21	10	Z	1.0
67-72-1	Hexachloroethane	19	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	38	2.0		1.0
78-59-1	Isophorone	25	1.0		1.0
91-20-3	Naphthalene	31	1.0		1.0
98-95-3	Nitrobenzene	31	2.0		1.0
67-75-9	N-Nitrosodimethylamine	25	5.0		1.0
621-64-7	N-Nitrosodi-n-propylamine	31	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	48	2.0		1.0
87-86-5	Pentachlorophenol	110	20		1.0
85-01-8	Phenanthrene	42	1.0		1.0
108-95-2	Phenol	110	5.0		1.0
129-00-0	Pyrene	49	1.0		1.0
110-86-1	Pyridine	12	20	T	1.0

Sample is a matrix spike.
Phenol compounds are spiked at 100 ug/L.
Base Neutral compounds are spiked at 50 ug/L.
Unidentified peaks present in sample.

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample AB07391 TMW-3 MS

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.08	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	4.1	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	55	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	75	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	69	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	50	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	50	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-47-3	Chromium - Total	48	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	49	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	61	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	71	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	100	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	86	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	77	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	31	µg/L	1	3	11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	47	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	49	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	67	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	99	µg/L	10		11/19/2007	6020/200.8	KS
7439-89-6	Iron - Total	5200	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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ug / L : microgram / liter (ppb)
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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07392 TMW-3 MSD

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 480

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	39.0			
SURROGATE	#Tetrachloro-m-xylene#	46.8			
72-54-8	4,4'-DDD	0.40	0.04		1.0
72-55-9	4,4'-DDE	0.27	0.04		1.0
50-29-3	4,4'-DDT	0.36	0.04		1.0
319-84-6	a-BHC	0.30	0.04		1.0
5103-71-9	a-Chlordane	0.30	0.02		1.0
309-00-2	Aldrin	0.27	0.02		1.0
12674-11-2	Aroclor 1016	Not Detected	0.21		1.0
11104-28-2	Aroclor 1221	Not Detected	0.21		1.0
11141-16-5	Aroclor 1232	Not Detected	0.21		1.0
53469-21-9	Aroclor 1242	Not Detected	0.21		1.0
12672-29-6	Aroclor 1248	Not Detected	0.21		1.0
11097-69-1	Aroclor 1254	Not Detected	0.21		1.0
11096-82-5	Aroclor 1260	Not Detected	0.21		1.0
37324-23-5	Aroclor 1262	Not Detected	0.21		1.0
11100-14-4	Aroclor 1268	Not Detected	0.21		1.0
319-85-7	b-BHC	0.33	0.04		1.0
319-86-8	d-BHC	0.33	0.04		1.0
60-57-1	Dieldrin	0.36	0.04		1.0
959-98-8	Endosulfan I	0.37	0.04		1.0
33213-65-9	Endosulfan II	0.36	0.06		1.0
1031-07-8	Endosulfan sulfate	0.38	0.1		1.0
72-20-8	Endrin	0.41	0.04		1.0
7421-93-4	Endrin aldehyde	0.27	0.04		1.0
53494-70-5	Endrin ketone	0.42	0.04		1.0
58-89-9	g-BHC (Lindane)	0.31	0.04		1.0
5103-74-2	g-Chlordane	0.28	0.02		1.0
76-44-8	Heptachlor	0.31	0.02		1.0
1024-57-3	Heptachlor epoxide	0.37	0.02		1.0
87-82-1	Hexabromobenzene	0.27	0.04		1.0
72-43-5	Methoxychlor	0.45	0.1		1.0
2385-85-5	Mirex	0.24	0.04		1.0
59080-40-9	PBB (BP-6)	0.18	0.1		1.0
8001-35-2	Toxaphene	Not Detected	0.21		1.0

Sample is a matrix spike.
Pesticides are spiked at 0.42 ug/L.

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Sample Number: AB07392 TMW-3 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	95.0			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	98.7			
630-20-6	1,1,1,2-Tetrachloroethane	51	1.0		1.0
71-55-6	1,1,1-Trichloroethane	50	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	54	1.0		1.0
79-00-5	1,1,2-Trichloroethane	54	1.0		1.0
75-34-3	1,1-Dichloroethane	52	1.0		1.0
75-35-4	1,1-Dichloroethylene	41	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	50	5.0		1.0
96-18-4	1,2,3-Trichloropropane	51	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	51	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	53	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	54	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	55	5.0		1.0
106-93-4	1,2-Dibromoethane	50	1.0		1.0
95-50-1	1,2-Dichlorobenzene	50	1.0		1.0
107-06-2	1,2-Dichloroethane	51	1.0		1.0
78-87-5	1,2-Dichloropropane	53	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	50	1.0		1.0
541-73-1	1,3-Dichlorobenzene	49	1.0		1.0
106-46-7	1,4-Dichlorobenzene	49	1.0		1.0
78-93-3	2-Butanone (MEK)	53	5.0	6	1.0
591-78-6	2-Hexanone	53	5.0	6	1.0
91-57-6	2-Methylnaphthalene	58	5.0	X	1.0
67-64-1	2-Propanone (acetone)	80	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	57	5.0		1.0
107-13-1	Acrylonitrile	57	5.0	Z	1.0
71-43-2	Benzene	58	1.0		1.0
108-86-1	Bromobenzene	49	1.0		1.0
74-97-5	Bromochloromethane	45	1.0		1.0
75-27-4	Bromodichloromethane	50	1.0		1.0
75-25-2	Bromoform	48	1.0		1.0
74-83-9	Bromomethane	38	5.0	5	1.0
75-15-0	Carbon disulfide	40	1.0		1.0
56-23-5	Carbon tetrachloride	45	1.0		1.0
108-90-7	Chlorobenzene	50	1.0		1.0
75-00-3	Chloroethane	86	5.0		1.0
67-66-3	Chloroform	50	1.0		1.0
74-87-3	Chloromethane	42	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	50	1.0		1.0

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Sample Number: AB07392 TMW-3 MSD

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/15/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	50	1.0		1.0
110-82-7	Cyclohexane	55	5.0		1.0
124-48-1	Dibromochloromethane	51	1.0		1.0
74-95-3	Dibromomethane	49	1.0		1.0
75-71-8	Dichlorodifluoromethane	40	5.0	6	1.0
60-29-7	Diethyl ether	50	5.0		1.0
108-20-3	Diisopropyl Ether	51	5.0		1.0
100-41-4	Ethylbenzene	52	1.0		1.0
637-92-3	Ethyltertiarybutylether	51	5.0		1.0
67-72-1	Hexachloroethane	45	5.0		1.0
98-82-8	Isopropylbenzene	48	1.0		1.0
108383,106423	m & p - Xylene	110	2.0		1.0
74-88-4	Methyl iodide	38	1.0	5	1.0
75-09-2	Methylene chloride	39	5.0	7	1.0
1634-04-4	Methyltertiarybutylether	53	1.0		1.0
91-20-3	Naphthalene	57	5.0	X	1.0
104-51-8	n-Butylbenzene	48	1.0		1.0
103-65-1	n-Propylbenzene	49	1.0		1.0
95-47-6	o-Xylene	53	1.0		1.0
99-87-6	p-Isopropyl toluene	49	1.0		1.0
135-98-8	sec-Butylbenzene	48	1.0		1.0
100-42-5	Styrene	50	1.0		1.0
98-06-6	tert-Butylbenzene	50	1.0		1.0
75-65-0	tertiary Butyl Alcohol	250	50		1.0
994-05-8	tertiaryAmylmethylether	52	5.0		1.0
127-18-4	Tetrachloroethylene	51	1.0		1.0
109-99-9	Tetrahydrofuran	56	5.0		1.0
108-88-3	Toluene	55	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	46	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	49	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	47	5.0	Z	1.0
79-01-6	Trichloroethylene	52	1.0		1.0
75-69-4	Trichlorofluoromethane	53	1.0		1.0
75-01-4	Vinyl chloride	46	1.0		1.0

Sample is a matrix spike.
Compounds spiked at 50 ug/L, except tertiary butyl alcohol spiked at 250 ug/L & m&p-xylene spiked at 100 ug/L.

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Sample Number: AB07392 TMW-3 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	67.1			
SURROGATE	#2,4,6-Tribromophenol#	95.0			
SURROGATE	#2-Fluorophenol#	31.1			
SURROGATE	#Nitrobenzene - D5#	60.6			
SURROGATE	#Phenol - D6#	23.0			
SURROGATE	#p-Terphenyl-d14#	99.8			
120-82-1	1,2,4-Trichlorobenzene	27	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	91	5.0		1.0
88-06-2	2,4,6-Trichlorophenol	82	4.0		1.0
120-83-2	2,4-Dichlorophenol	73	10		1.0
105-67-9	2,4-Dimethylphenol	78	5.0		1.0
51-28-5	2,4-Dinitrophenol	96	25		1.0
121-14-2	2,4-Dinitrotoluene	43	5.0		1.0
606-20-2	2,6-Dinitrotoluene	44	5.0		1.0
91-58-7	2-Chloronaphthalene	33	2.0		1.0
95-57-8	2-Chlorophenol	56	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	93	20		1.0
91-57-6	2-Methylnaphthalene	30	5.0		1.0
95-48-7	2-Methylphenol (o-Cresol)	59	10		1.0
88-74-4	2-Nitroaniline	43	20		1.0
88-75-5	2-Nitrophenol	64	5.0		1.0
108394,106445	3 & 4-Methylphenol	58	20		1.0
99-09-2	3-Nitroaniline	39	20		1.0
101-55-3	4-Bromophenyl phenyl ether	41	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	88	5.0		1.0
7005-72-3	4-Chlorodiphenylether	34	1.0		1.0
100-01-6	4-Nitroaniline	34	20	5	1.0
100-02-7	4-Nitrophenol	37	25		1.0
83-32-9	Acenaphthene	36	1.0		1.0
208-96-8	Acenaphthylene	40	1.0		1.0
62-53-3	Aniline	9.6	4.0		1.0
120-12-7	Anthracene	41	1.0		1.0
103-33-3	Azobenzene	36	2.0		1.0
56-55-3	Benzo[a]anthracene	40	1.0		1.0
50-32-8	Benzo[a]pyrene	41	1.0		1.0
205-99-2	Benzo[b]fluoranthene	40	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	33	1.0		1.0
207-08-9	Benzo[k]fluoranthene	40	1.0		1.0
100-51-6	Benzyl Alcohol	57	50	5	1.0
111-91-1	Bis(2-chloroethoxy)methane	32	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	27	1.0		1.0

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Sample Number: AB07392 TMW-3 MSD

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/20/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	28	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	34	5.0		1.0
85-68-7	Butyl benzyl phthalate	45	5.0		1.0
86-74-8	Carbazole	37	5.0		1.0
218-01-9	Chrysene	40	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	35	2.0		1.0
132-64-9	Dibenzofuran	35	4.0		1.0
84-66-2	Diethylphthalate	44	5.0		1.0
131-11-3	Dimethyl phthalate	42	5.0		1.0
84-74-2	Di-n-butyl phthalate	39	5.0		1.0
117-84-0	Di-n-octyl phthalate	37	5.0		1.0
206-44-0	Fluoranthene	41	1.0		1.0
86-73-7	Fluorene	33	1.0		1.0
118-74-1	Hexachlorobenzene	41	1.0		1.0
87-68-3	Hexachlorobutadiene	25	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	20	10	Z	1.0
67-72-1	Hexachloroethane	19	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	36	2.0		1.0
78-59-1	Isophorone	24	1.0		1.0
91-20-3	Naphthalene	31	1.0		1.0
98-95-3	Nitrobenzene	30	2.0		1.0
67-75-9	N-Nitrosodimethylamine	23	5.0		1.0
621-64-7	N-Nitrosodi-n-propylamine	28	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	46	2.0		1.0
87-86-5	Pentachlorophenol	100	20		1.0
85-01-8	Phenanthrene	41	1.0		1.0
108-95-2	Phenol	110	5.0		1.0
129-00-0	Pyrene	48	1.0		1.0
110-86-1	Pyridine	9.7	20	T	1.0

Sample is a matrix spike.
Phenol compounds are spiked at 100 ug/L.
Base Neutral compounds are spiked at 50 ug/L.
Unidentified peaks present in sample.

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Sample AB07392 TMW-3 MSD

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.09	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	4.0	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	55	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	75	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	67	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	51	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	51	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-47-3	Chromium - Total	47	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	49	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	61	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	71	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	100	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	86	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	76	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	31	µg/L	1	3	11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	47	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	49	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	68	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	100	µg/L	10		11/19/2007	6020/200.8	KS
7439-89-6	Iron - Total	5000	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07393 TMW-4

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 970

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	44.0			
SURROGATE	#Tetrachloro-m-xylene#	41.7			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.10		1.0
11104-28-2	Aroclor 1221	Not Detected	0.10		1.0
11141-16-5	Aroclor 1232	Not Detected	0.10		1.0
53469-21-9	Aroclor 1242	Not Detected	0.10		1.0
12672-29-6	Aroclor 1248	Not Detected	0.10		1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.10		1.0

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Sample Number: AB07393 TMW-4

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.6			
SURROGATE	#Dibromofluoromethane#	103			
SURROGATE	#Toluene-d8#	100			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07393 TMW-4

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07393 TMW-4

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	66.0			
SURROGATE	#2,4,6-Tribromophenol#	89.7			
SURROGATE	#2-Fluorophenol#	34.7			
SURROGATE	#Nitrobenzene - D5#	67.1			
SURROGATE	#Phenol - D6#	27.2			
SURROGATE	#p-Terphenyl-d14#	89.0			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.1		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.0		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	10		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.1		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	25		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.1		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.1		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.0		1.0
95-57-8	2-Chlorophenol	Not Detected	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	20		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.1		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	10		1.0
88-74-4	2-Nitroaniline	Not Detected	20		1.0
88-75-5	2-Nitrophenol	Not Detected	5.1		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	20		1.0
99-09-2	3-Nitroaniline	Not Detected	20		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.1		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.0		1.0
100-01-6	4-Nitroaniline	Not Detected	20		1.0
100-02-7	4-Nitrophenol	Not Detected	25		1.0
83-32-9	Acenaphthene	Not Detected	1.0		1.0
208-96-8	Acenaphthylene	Not Detected	1.0		1.0
62-53-3	Aniline	Not Detected	4.0		1.0
120-12-7	Anthracene	Not Detected	1.0		1.0
103-33-3	Azobenzene	Not Detected	2.0		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.0		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.0		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.0		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.0		1.0
100-51-6	Benzyl Alcohol	Not Detected	51		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.0		1.0

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Sample Number: AB07393 TMW-4

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 990

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.1		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.1		1.0
86-74-8	Carbazole	Not Detected	5.1		1.0
218-01-9	Chrysene	Not Detected	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.0		1.0
132-64-9	Dibenzofuran	Not Detected	4.0		1.0
84-66-2	Diethylphthalate	Not Detected	5.1		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.1		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.1		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.1		1.0
206-44-0	Fluoranthene	Not Detected	1.0		1.0
86-73-7	Fluorene	Not Detected	1.0		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.0		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	10	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.0		1.0
78-59-1	Isophorone	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	1.0		1.0
98-95-3	Nitrobenzene	Not Detected	2.0		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.1		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.0		1.0
87-86-5	Pentachlorophenol	Not Detected	20		1.0
85-01-8	Phenanthrene	Not Detected	1.0		1.0
108-95-2	Phenol	Not Detected	5.1		1.0
129-00-0	Pyrene	Not Detected	1.0		1.0
110-86-1	Pyridine	Not Detected	20		1.0

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Sample AB07393 TMW-4

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.008	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	6.5	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	100	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	2.2	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	100	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	6.0	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/20/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	ND	µg/L	10		11/27/2007	6020/200.8	KS
7439-89-6	Iron - Total	910	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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RL : Reporting Limit
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Sample Number: AB07394 TMW-5

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 980

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	57.4			
SURROGATE	#Tetrachloro-m-xylene#	39.7			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.10		1.0
11104-28-2	Aroclor 1221	Not Detected	0.10		1.0
11141-16-5	Aroclor 1232	Not Detected	0.10		1.0
53469-21-9	Aroclor 1242	Not Detected	0.10		1.0
12672-29-6	Aroclor 1248	Not Detected	0.10		1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.10		1.0

CAS# : Chemical Abstract Service Registry Number
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ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07394 TMW-5

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.7			
SURROGATE	#Dibromofluoromethane#	102			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07394 TMW-5

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07394 TMW-5

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	50.3			
SURROGATE	#2,4,6-Tribromophenol#	91.8			
SURROGATE	#2-Fluorophenol#	25.0			
SURROGATE	#Nitrobenzene - D5#	46.4			
SURROGATE	#Phenol - D6#	19.5			
SURROGATE	#p-Terphenyl-d14#	89.8			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.0		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.0		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	10		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.0		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	25		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.0		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.0		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.0		1.0
95-57-8	2-Chlorophenol	Not Detected	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	20		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	10		1.0
88-74-4	2-Nitroaniline	Not Detected	20		1.0
88-75-5	2-Nitrophenol	Not Detected	5.0		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	20		1.0
99-09-2	3-Nitroaniline	Not Detected	20		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.0		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.0		1.0
100-01-6	4-Nitroaniline	Not Detected	20		1.0
100-02-7	4-Nitrophenol	Not Detected	25		1.0
83-32-9	Acenaphthene	Not Detected	1.0		1.0
208-96-8	Acenaphthylene	Not Detected	1.0		1.0
62-53-3	Aniline	Not Detected	4.0		1.0
120-12-7	Anthracene	Not Detected	1.0		1.0
103-33-3	Azobenzene	Not Detected	2.0		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.0		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.0		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.0		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.0		1.0
100-51-6	Benzyl Alcohol	Not Detected	50		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.0		1.0

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Sample Number: AB07394 TMW-5

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.0		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.0		1.0
86-74-8	Carbazole	Not Detected	5.0		1.0
218-01-9	Chrysene	Not Detected	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.0		1.0
132-64-9	Dibenzofuran	Not Detected	4.0		1.0
84-66-2	Diethylphthalate	Not Detected	5.0		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.0		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.0		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.0		1.0
206-44-0	Fluoranthene	Not Detected	1.0		1.0
86-73-7	Fluorene	Not Detected	1.0		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.0		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	10	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.0		1.0
78-59-1	Isophorone	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	1.0		1.0
98-95-3	Nitrobenzene	Not Detected	2.0		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.0		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.0		1.0
87-86-5	Pentachlorophenol	Not Detected	20		1.0
85-01-8	Phenanthrene	Not Detected	1.0		1.0
108-95-2	Phenol	Not Detected	5.0		1.0
129-00-0	Pyrene	Not Detected	1.0		1.0
110-86-1	Pyridine	Not Detected	20		1.0

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Sample AB07394 TMW-5

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.01	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	5.0	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	520	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	3.3	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	14	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	410	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	4.5	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	17	µg/L	10		11/27/2007	6020/200.8	KS
7439-89-6	Iron - Total	30000	µg/L	200	D	11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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Sample Number: AB07395 TMW-6

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 980

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	34.7			
SURROGATE	#Tetrachloro-m-xylene#	58.6			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.1	K	5.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.05	K	5.0
12674-11-2	Aroclor 1016	Not Detected	0.51	K	5.0
11104-28-2	Aroclor 1221	Not Detected	0.51	K	5.0
11141-16-5	Aroclor 1232	Not Detected	0.51	K	5.0
53469-21-9	Aroclor 1242	Not Detected	0.51	K	5.0
12672-29-6	Aroclor 1248	Not Detected	0.51	K	5.0
11097-69-1	Aroclor 1254	Not Detected	0.51	K	5.0
11096-82-5	Aroclor 1260	Not Detected	0.51	K	5.0
37324-23-5	Aroclor 1262	Not Detected	0.51	K	5.0
11100-14-4	Aroclor 1268	Not Detected	0.51	K	5.0
319-85-7	b-BHC	Not Detected	0.1	K	5.0
319-86-8	d-BHC	Not Detected	0.1	K	5.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.1	K	5.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.05	K	5.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.51	K	5.0

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Systems Mgmt Unit: George Krisztian

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FAX: (517) 335-9600

Sample Number: AB07395 TMW-6

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	100			
SURROGATE	#Dibromofluoromethane#	103			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	2.4	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	4.6	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	20	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	3.6	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

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ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07395 TMW-6

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	44	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	2.6	1.0		1.0
108383,106423	m & p - Xylene	3.3	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	78	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	3.5	1.0		1.0
99-87-6	p-Isopropyl toluene	1.9	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	1.1	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 980

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07395 TMW-6

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 980

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	58.5			
SURROGATE	#2,4,6-Tribromophenol#	102			
SURROGATE	#2-Fluorophenol#	30.9			
SURROGATE	#Nitrobenzene - D5#	57.2			
SURROGATE	#Phenol - D6#	26.3			
SURROGATE	#p-Terphenyl-d14#	98.9			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.0		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.1		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.1		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	10		1.0
105-67-9	2,4-Dimethylphenol	16	5.1		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	26		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.1		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.1		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.0		1.0
95-57-8	2-Chlorophenol	Not Detected	10		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	20		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.1		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	10		1.0
88-74-4	2-Nitroaniline	Not Detected	20		1.0
88-75-5	2-Nitrophenol	Not Detected	5.1		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	20		1.0
99-09-2	3-Nitroaniline	Not Detected	20		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.0		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.1		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.0		1.0
100-01-6	4-Nitroaniline	Not Detected	20		1.0
100-02-7	4-Nitrophenol	Not Detected	26		1.0
83-32-9	Acenaphthene	0.8	1.0	T	1.0
208-96-8	Acenaphthylene	Not Detected	1.0		1.0
62-53-3	Aniline	Not Detected	4.1		1.0
120-12-7	Anthracene	Not Detected	1.0		1.0
103-33-3	Azobenzene	Not Detected	2.0		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.0		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.0		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.0		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.0		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.0		1.0
100-51-6	Benzyl Alcohol	Not Detected	51		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.0		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.0		1.0

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Sample Number: AB07395 TMW-6

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 980

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.0		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.1		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.1		1.0
86-74-8	Carbazole	Not Detected	5.1		1.0
218-01-9	Chrysene	Not Detected	1.0		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.0		1.0
132-64-9	Dibenzofuran	Not Detected	4.1		1.0
84-66-2	Diethylphthalate	Not Detected	5.1		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.1		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.1		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.1		1.0
206-44-0	Fluoranthene	Not Detected	1.0		1.0
86-73-7	Fluorene	Not Detected	1.0		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.0		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.0		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	10	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.0		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.0		1.0
78-59-1	Isophorone	Not Detected	1.0		1.0
91-20-3	Naphthalene	37	1.0		1.0
98-95-3	Nitrobenzene	Not Detected	2.0		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.1		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.0		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.0		1.0
87-86-5	Pentachlorophenol	Not Detected	20		1.0
85-01-8	Phenanthrene	1.1	1.0		1.0
108-95-2	Phenol	Not Detected	5.1		1.0
129-00-0	Pyrene	0.8	1.0	T	1.0
110-86-1	Pyridine	Not Detected	20		1.0

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Sample AB07395 TMW-6

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	2.5	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	0.1	mg/L	0.005		11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	1.5	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	9.6	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	320	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	1.0	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	13	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	24	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	100	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	730	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	16	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	10	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	290	µg/L	10		11/19/2007	6020/200.8	KS
7439-89-6	Iron - Total	24000	µg/L	200	D	11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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Sample Number: AB07396 TMW-7

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 970

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	43.0			
SURROGATE	#Tetrachloro-m-xylene#	36.1			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.10		1.0
11104-28-2	Aroclor 1221	Not Detected	0.10		1.0
11141-16-5	Aroclor 1232	Not Detected	0.10		1.0
53469-21-9	Aroclor 1242	Not Detected	0.10		1.0
12672-29-6	Aroclor 1248	Not Detected	0.10		1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.10		1.0

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Sample Number: AB07396 TMW-7

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.4			
SURROGATE	#Dibromofluoromethane#	102			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07396 TMW-7

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07396 TMW-7

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	56.7			
SURROGATE	#2,4,6-Tribromophenol#	90.8			
SURROGATE	#2-Fluorophenol#	32.7			
SURROGATE	#Nitrobenzene - D5#	56.3			
SURROGATE	#Phenol - D6#	26.2			
SURROGATE	#p-Terphenyl-d14#	100			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.1		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.3		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.2		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	11		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.3		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	26		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.3		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.3		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.1		1.0
95-57-8	2-Chlorophenol	Not Detected	11		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	21		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.3		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	11		1.0
88-74-4	2-Nitroaniline	Not Detected	21		1.0
88-75-5	2-Nitrophenol	Not Detected	5.3		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	21		1.0
99-09-2	3-Nitroaniline	Not Detected	21		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.1		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.3		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.1		1.0
100-01-6	4-Nitroaniline	Not Detected	21		1.0
100-02-7	4-Nitrophenol	Not Detected	26		1.0
83-32-9	Acenaphthene	Not Detected	1.1		1.0
208-96-8	Acenaphthylene	Not Detected	1.1		1.0
62-53-3	Aniline	Not Detected	4.2		1.0
120-12-7	Anthracene	Not Detected	1.1		1.0
103-33-3	Azobenzene	Not Detected	2.1		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.1		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.1		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.1		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.1		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.1		1.0
100-51-6	Benzyl Alcohol	Not Detected	53		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.1		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.1		1.0

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Sample Number: AB07396 TMW-7

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.1		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.3		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.3		1.0
86-74-8	Carbazole	Not Detected	5.3		1.0
218-01-9	Chrysene	Not Detected	1.1		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.1		1.0
132-64-9	Dibenzofuran	Not Detected	4.2		1.0
84-66-2	Diethylphthalate	Not Detected	5.3		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.3		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.3		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.3		1.0
206-44-0	Fluoranthene	Not Detected	1.1		1.0
86-73-7	Fluorene	Not Detected	1.1		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.1		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.1		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	11	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.1		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.1		1.0
78-59-1	Isophorone	Not Detected	1.1		1.0
91-20-3	Naphthalene	Not Detected	1.1		1.0
98-95-3	Nitrobenzene	Not Detected	2.1		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.3		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.1		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.1		1.0
87-86-5	Pentachlorophenol	Not Detected	21		1.0
85-01-8	Phenanthrene	Not Detected	1.1		1.0
108-95-2	Phenol	Not Detected	5.3		1.0
129-00-0	Pyrene	Not Detected	1.1		1.0
110-86-1	Pyridine	Not Detected	21		1.0

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Sample AB07396 TMW-7

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.04	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	FCN	mg/L	0.005	F	11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	150	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	1600	µg/L	5	D	11/27/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	6.5	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	ND	µg/L	10		11/27/2007	6020/200.8	KS
7439-89-6	Iron - Total	970	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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Sample Number: AB07397 TMW-8

Pesticides and PCBs

Analytical Method: 8081,8082 **Date Tested:** 11/15/2007 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 11/08/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	45.3			
SURROGATE	#Tetrachloro-m-xylene#	33.9			
72-54-8	4,4'-DDD	Not Detected	0.02		1.0
72-55-9	4,4'-DDE	Not Detected	0.02		1.0
50-29-3	4,4'-DDT	Not Detected	0.02		1.0
319-84-6	a-BHC	Not Detected	0.02		1.0
5103-71-9	a-Chlordane	Not Detected	0.01		1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.11		1.0
11104-28-2	Aroclor 1221	Not Detected	0.11		1.0
11141-16-5	Aroclor 1232	Not Detected	0.11		1.0
53469-21-9	Aroclor 1242	Not Detected	0.11		1.0
12672-29-6	Aroclor 1248	Not Detected	0.11		1.0
11097-69-1	Aroclor 1254	Not Detected	0.11		1.0
11096-82-5	Aroclor 1260	Not Detected	0.11		1.0
37324-23-5	Aroclor 1262	Not Detected	0.11		1.0
11100-14-4	Aroclor 1268	Not Detected	0.11		1.0
319-85-7	b-BHC	Not Detected	0.02		1.0
319-86-8	d-BHC	Not Detected	0.02		1.0
60-57-1	Dieldrin	Not Detected	0.02		1.0
959-98-8	Endosulfan I	Not Detected	0.02		1.0
33213-65-9	Endosulfan II	Not Detected	0.03		1.0
1031-07-8	Endosulfan sulfate	Not Detected	0.05		1.0
72-20-8	Endrin	Not Detected	0.02		1.0
7421-93-4	Endrin aldehyde	Not Detected	0.02		1.0
53494-70-5	Endrin ketone	Not Detected	0.02		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.02		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor epoxide	Not Detected	0.01		1.0
87-82-1	Hexabromobenzene	Not Detected	0.02		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.02		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
8001-35-2	Toxaphene	Not Detected	0.11		1.0

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Sample Number: AB07397 TMW-8

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	100			
SURROGATE	#Dibromofluoromethane#	103			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample Number: AB07397 TMW-8

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/14/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	3.5	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB07397 TMW-8

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	54.5			
SURROGATE	#2,4,6-Tribromophenol#	83.4			
SURROGATE	#2-Fluorophenol#	34.0			
SURROGATE	#Nitrobenzene - D5#	56.0			
SURROGATE	#Phenol - D6#	24.8			
SURROGATE	#p-Terphenyl-d14#	101			
120-82-1	1,2,4-Trichlorobenzene	Not Detected	2.1		1.0
95-95-4	2,4,5-Trichlorophenol	Not Detected	5.3		1.0
88-06-2	2,4,6-Trichlorophenol	Not Detected	4.2		1.0
120-83-2	2,4-Dichlorophenol	Not Detected	11		1.0
105-67-9	2,4-Dimethylphenol	Not Detected	5.3		1.0
51-28-5	2,4-Dinitrophenol	Not Detected	26		1.0
121-14-2	2,4-Dinitrotoluene	Not Detected	5.3		1.0
606-20-2	2,6-Dinitrotoluene	Not Detected	5.3		1.0
91-58-7	2-Chloronaphthalene	Not Detected	2.1		1.0
95-57-8	2-Chlorophenol	Not Detected	11		1.0
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	21		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.3		1.0
95-48-7	2-Methylphenol (o-Cresol)	Not Detected	11		1.0
88-74-4	2-Nitroaniline	Not Detected	21		1.0
88-75-5	2-Nitrophenol	Not Detected	5.3		1.0
108394,106445	3 & 4-Methylphenol	Not Detected	21		1.0
99-09-2	3-Nitroaniline	Not Detected	21		1.0
101-55-3	4-Bromophenyl phenyl ether	Not Detected	2.1		1.0
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	5.3		1.0
7005-72-3	4-Chlorodiphenylether	Not Detected	1.1		1.0
100-01-6	4-Nitroaniline	Not Detected	21		1.0
100-02-7	4-Nitrophenol	Not Detected	26		1.0
83-32-9	Acenaphthene	Not Detected	1.1		1.0
208-96-8	Acenaphthylene	Not Detected	1.1		1.0
62-53-3	Aniline	Not Detected	4.2		1.0
120-12-7	Anthracene	Not Detected	1.1		1.0
103-33-3	Azobenzene	Not Detected	2.1		1.0
56-55-3	Benzo[a]anthracene	Not Detected	1.1		1.0
50-32-8	Benzo[a]pyrene	Not Detected	1.1		1.0
205-99-2	Benzo[b]fluoranthene	Not Detected	1.1		1.0
191-24-2	Benzo[g,h,i]perylene	Not Detected	1.1		1.0
207-08-9	Benzo[k]fluoranthene	Not Detected	1.1		1.0
100-51-6	Benzyl Alcohol	Not Detected	53		1.0
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	2.1		1.0
111-44-4	Bis(2-chloroethyl)ether	Not Detected	1.1		1.0

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ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07397 TMW-8

Base Neutral Acid Compounds

Analytical Method: 8270 **Date Tested:** 11/16/2007 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 11/09/2007 **Qualifier:** **Volume:** 950

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	1.1		1.0
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	5.3		1.0
85-68-7	Butyl benzyl phthalate	Not Detected	5.3		1.0
86-74-8	Carbazole	Not Detected	5.3		1.0
218-01-9	Chrysene	Not Detected	1.1		1.0
53-70-3	Dibenz[a,h]anthracene	Not Detected	2.1		1.0
132-64-9	Dibenzofuran	Not Detected	4.2		1.0
84-66-2	Diethylphthalate	Not Detected	5.3		1.0
131-11-3	Dimethyl phthalate	Not Detected	5.3		1.0
84-74-2	Di-n-butyl phthalate	Not Detected	5.3		1.0
117-84-0	Di-n-octyl phthalate	Not Detected	5.3		1.0
206-44-0	Fluoranthene	Not Detected	1.1		1.0
86-73-7	Fluorene	Not Detected	1.1		1.0
118-74-1	Hexachlorobenzene	Not Detected	1.1		1.0
87-68-3	Hexachlorobutadiene	Not Detected	1.1		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	11	Z	1.0
67-72-1	Hexachloroethane	Not Detected	1.1		1.0
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	2.1		1.0
78-59-1	Isophorone	Not Detected	1.1		1.0
91-20-3	Naphthalene	Not Detected	1.1		1.0
98-95-3	Nitrobenzene	Not Detected	2.1		1.0
67-75-9	N-Nitrosodimethylamine	Not Detected	5.3		1.0
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	2.1		1.0
86-30-6	N-Nitrosodiphenylamine	Not Detected	2.1		1.0
87-86-5	Pentachlorophenol	Not Detected	21		1.0
85-01-8	Phenanthrene	Not Detected	1.1		1.0
108-95-2	Phenol	Not Detected	5.3		1.0
129-00-0	Pyrene	Not Detected	1.1		1.0
110-86-1	Pyridine	Not Detected	21		1.0

CAS# : Chemical Abstract Service Registry Number
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ug / Kg : microgram / kilogram (ppb)
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Sample AB07397 TMW-8

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
CN_TOTAL	Cyanide	.16	mg/L	0.005		11/16/2007	9010/335.2	RG
CN_ AMEN	Cyanide - Amenable	ND	mg/L	0.005		11/16/2007	9010/335.2	RG
	Digestion Metals Water	Completed				11/14/2007	3010/200	TK2
	Digestion Mercury Water	Completed				11/15/2007	7470/245.1	TK2
7439-97-6	Mercury - Total	ND	µg/L	0.2		11/16/2007	7470/245.1	TS
7440-36-0	Antimony - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-38-2	Arsenic - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-39-3	Barium - Total	66	µg/L	5		11/19/2007	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-43-9	Cadmium - Total	ND	µg/L	0.2		11/20/2007	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		11/19/2007	6020/200.8	KS
7440-50-8	Copper - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-92-1	Lead - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7439-96-5	Manganese - Total	840	µg/L	5		11/19/2007	6020/200.8	KS
7439-98-7	Molybdenum - Total	ND	µg/L	25		11/19/2007	6020/200.8	KS
7440-02-0	Nickel - Total	4.2	µg/L	2.0		11/19/2007	6020/200.8	KS
7782-49-2	Selenium - Total	ND	µg/L	1		11/19/2007	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		11/19/2007	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-62-2	Vanadium - Total	ND	µg/L	2		11/19/2007	6020/200.8	KS
7440-66-6	Zinc - Total	ND	µg/L	10		11/27/2007	6020/200.8	KS
7439-89-6	Iron - Total	1200	µg/L	20		11/19/2007	6010/200.7	EG
	Florisil Cleanup	Completed				11/13/2007	3620	DT
	Gel Permeation Cleanup	Completed				11/08/2007	3640	RD

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Sample Number: AB07398 TP

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	98.5			
SURROGATE	#Dibromofluoromethane#	102			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	Not Detected	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	Not Detected	20	G	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Sample Number: AB07398 TP

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 11/13/2007 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0	5	1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50		1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
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Qualifier Code	Qualifier Description
1	Result(s) and RL(s) are estimated due to low surrogate recovery.
2	Result is estimated due to high surrogate recovery.
3	Result(s) and RL(s) are estimated due to low matrix spike recovery.
4	Result is estimated due to high matrix spike recovery.
5	Result and RL are estimated due to low continuing calibration standard criteria failure.
6	Result is estimated due to high continuing calibration standard criteria failure.
7	Result(s) and RL(s) are estimated due to poor precision.
8	Result(s) and RL(s) are estimated due to low recovery of batch QC.
9	Result outside QC acceptance criteria.
A	Value reported is the mean of two or more determinations.
C	Value calculated from other independent parameters.
D	Analyte value quantified from a dilution(s); reporting limit (RL) raised.
E	Result is estimated due to high recovery of batch QC.
F	Amenable cyanide was not analyzed due to low level of total cyanide.
G	Result and RL are estimated due to initial calibration standard criteria failure.
H	Recommended laboratory holding time was exceeded.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
J	Analyte was positively identified. Value is an estimate.
JA	Result is estimated due to multiple Aroclors present.
JC	Result is estimated since confirmation analysis did not meet acceptance criteria
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
K	RL(s) raised due to matrix interferences.
KR	RL(s) raised due to low sample volume submitted.
KS	RL(s) raised due to low total solids.
KW	RL(s) raised due to light sample weight.
LB	Reported library search compounds are tentative identifications with estimated concentrations.
M	The level of the method preparation blank (MPB) is reported in the qualifier column.
N	Non-homogeneous sample made analysis of sample questionable.
O	Result and RL estimated due to analysis from an open vial.
P	Recommended sample collection/preservation technique not used; reported result(s) is an estimate.
Q	Quantity of sample insufficient to perform analyses requested.
R	Result confirmed by re-extraction and analysis.
S	Supernatant analyzed.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
W	Reported value is less than the method detection limit (MDL).
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200°C. 2-Methylnaphthalene & naphthalene have boiling points above 200°C and are better suited to analysis by methods 8270 or 625 as semivolatile organics.
PI	Possible interference may have affected the accuracy of the laboratory result
Z	Result reported below the RL to meet the TDL in RRD Op Memo 2 (10/22/04) multiplied by applicable dilution factor.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

All criteria, unless otherwise noted, are expressed in units of parts per billion (ppb). One ppb is equivalent to one microgram per liter (ug/L). Criteria with six or more digits are expressed in scientific notation. For example, 200,000 ppb is presented as 2.0E+5. The lowest generic groundwater criterion for a given hazardous substance is presented in a bold box. A footnote is designated by a letter in parentheses and is explained in the footnote pages that follow the criteria tables. When the risk-based criterion is less than the target detection limit (TDL), the TDL is listed as the criterion (R 299.5707). In these cases, two numbers are presented in the cell. The first number is the criterion (i.e., TDL), and the second number is the risk-based or solubility value, whichever is lower (R 299.5708). Criteria were promulgated December 21, 2002 within the Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. These tables reflect modifications to the TDLs and new criteria consistent with the provisions of R299.5103(l) and R299.5706a, respectively.

Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
Acenaphthene	83329	1,300	3,800	19	4,200 (S)	4,200 (S)	4,200 (S)	4,240	ID	ID
Acenaphthylene	208968	52	150	ID	3,900 (S)	3,900 (S)	3,900 (S)	3,930	ID	ID
Acetaldehyde (I)	75070	950	2,700	130	1.1E+6	2.3E+6	4.2E+7	1.0E+9	8.9E+6	2.6E+7
Acetate	71501	4,200	12,000	(G)	ID	ID	ID	ID	ID	ID
Acetic acid	64197	4,200	12,000	1,000 (M); 360	NLV	NLV	1.8E+8	6.0E+9	1.0E+9 (D)	1.0E+9 (D)
Acetone (I)	67641	730	2,100	1,700	1.0E+9 (D,S)	1.0E+9 (D,S)	3.1E+7	1.0E+9	1.5E+7	1.0E+9 (D)
Acetonitrile	75058	140	400	NA	2.4E+7	4.5E+7	5.6E+6	2.00E+8	2.1E+7	2.0E+8
Acetophenone	98862	1,500	4,400	ID	6.1E+6 (S)	6.1E+6 (S)	6.1E+6 (S)	6.1E+6	ID	ID
Acrolein (I)	107028	120	330	NA	2,100	4,200	3.4E+6	2.10E+8	6.7E+6	3.4E+5
Acrylamide	79061	0.5 (A)	0.5 (A)	NA	NLV	NLV	13,000	2.20E+9	NA	ID
Acrylic acid	79107	3,900	11,000	NA	1.2E+7	2.8E+7	7.6E+7	1.0E+9	1.0E+9 (D)	ID
Acrylonitrile (I)	107131	2.6	11	4.9 (X)	34,000	1.9E+5	14,000	7.50E+7	6.4E+6	ID
Alachlor	15972608	2.0 (A)	2.0 (A)	11 (X)	NLV	NLV	1,700	1.83E+5	ID	ID
Aldicarb	116063	3.0 (A)	3.0 (A)	NA	NLV	NLV	1.2E+5	6.00E+6	ID	ID
Aldicarb sulfoxide	1646873	4.0 (A)	4.0 (A)	NA	NLV	NLV	2.7E+6	2.80E+7	ID	ID
Aldicarb sulfone	1646884	2.0 (A)	2.0 (A)	NA	NLV	NLV	2.1E+6	7.80E+6	ID	ID
Aldrin	309002	0.098	0.4	0.01 (M,X); 8.7E-6	180 (S)	180 (S)	0.34 (AA)	180	ID	ID
Aluminum (B)	7429905	50 (V)	50 (V)	NA	NLV	NLV	6.4E+7	NA	ID	ID
Ammonia	7664417	10,000 (N)	10,000 (N)	(CC)	3.2E+6	7.1E+6	ID	5.30E+8	ID	3.5E+6

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
t-Amyl methyl ether (TAME)	994058	190 (E)	190 (E)	NA	2.6E+5	5.7E+5	2.6E+6 (S)	2.64E+6	NA	NA
Aniline	62533	53	220	4	NLV	NLV	1.4E+5	3.60E+7	NA	ID
Anthracene	120127	43 (S)	43 (S)	ID	43 (S)	43 (S)	43 (S)	43.4	ID	ID
Antimony	7440360	6.0 (A)	6.0 (A)	130 (X)	NLV	NLV	68,000	NA	ID	ID
Arsenic	7440382	10 (A)	10 (A)	150 (X)	NLV	NLV	4,300	NA	ID	ID
Asbestos (BB)	1332214	7.0E+6 f/mL (A)	7.0E+6 f/mL (A)	NA	NLV	NLV	ID	NA	NA	ID
Atrazine	1912249	3.0 (A)	3.0 (A)	7.3 (X)	NLV	NLV	5,400	70,000	ID	ID
Azobenzene	103333	23	94	NA	6,400 (S)	6,400 (S)	1,600	6,400	ID	ID
Barium (B)	7440393	2,000 (A)	2,000 (A)	(G,X)	NLV	NLV	1.4E+7	NA	ID	ID
Benzene (I)	71432	5.0 (A)	5.0 (A)	200 (X)	5,600	35,000	11,000	1.75E+6	68,000	67,000
Benzidine	92875	0.3 (M); 0.0037	0.3 (M); 0.015	ID	NLV	NLV	7.1	5.20E+5	ID	ID
Benzo(a)anthracene (Q)	56553	2.1	8.5	ID	NLV	NLV	9.4 (S,AA)	9.4	ID	ID
Benzo(b)fluoranthene (Q)	205992	1.5 (S, AA)	1.5 (S, AA)	ID	ID	ID	1.5 (S,AA)	1.5	ID	ID
Benzo(k)fluoranthene (Q)	207089	1.0 (M); 0.8 (S)	1.0 (M); 0.8 (S)	NA	NLV	NLV	1.0 (M,AA); 0.8 (S)	0.8	ID	ID
Benzo(g,h,i)perylene	191242	1.0 (M); 0.26 (S)	1.0 (M); 0.26 (S)	NA	NLV	NLV	1.0 (M,AA); 0.26 (S)	0.26	ID	ID
Benzo(a)pyrene (Q)	50328	5.0 (A)	5.0 (A)	ID	NLV	NLV	1.0 (M,AA); 0.64	1.62	ID	ID
Benzoic acid	65850	32,000	92,000	NA	NLV	NLV	3.5E+6 (S)	3.50E+6	ID	ID
Benzyl alcohol	100516	10,000	29,000	NA	NLV	NLV	4.4E+7 (S)	4.40E+7	ID	ID
Benzyl chloride	100447	7.7	32	NA	12,000	77,000	3,600	4.90E+5	NA	ID
Beryllium	7440417	4.0 (A)	4.0 (A)	(G)	NLV	NLV	2.9E+5	NA	ID	ID
bis(2-Chloroethoxy)ethane	112265	ID	ID	ID	NLV	NLV	ID	1.89E+7	ID	ID
bis(2-Chloroethyl)ether (I)	111444	2.0	8.3	15 (X)	38,000	2.1E+5	5,700	1.72E+7	1.7E+7 (S)	1.7E+7 (S)
bis(2-Ethylhexyl)phthalate	117817	6.0 (A)	6.0 (A)	32	NLV	NLV	320 (AA)	340	NA	340 (S)
Boron (B)	7440428	500 (F)	500 (F)	1,900	NLV	NLV	6.2E+7	NA	ID	ID
Bromate	15541454	10 (A)	10 (A)	40 (X)	NLV	NLV	4,800	38,000	ID	ID
Bromobenzene (I)	108861	18	50	NA	1.8E+5	3.9E+5	12,000	4.13E+5	ID	ID

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
Bromodichloromethane	75274	80 (A,W)	80 (A,W)	ID	4,800	37,000	14,000	6.74E+6	ID	ID
Bromoform	75252	80 (A,W)	80 (A,W)	ID	4.7E+5	3.1E+6 (S)	1.4E+5	3.10E+6	ID	ID
Bromomethane	74839	10	29	35	4,000	9,000	70,000	1.45E+7	ID	ID
n-Butanol (I)	71363	950	2,700	NA	NLV	NLV	8.8E+6	7.40E+7	4.7E+7	7.4E+7 (S)
2-Butanone (MEK) (I)	78933	13,000	38,000	2,200	2.4E+8 (S)	2.4E+8 (S)	2.4E+8 (S)	2.40E+8	ID	2.4E+8 (S)
n-Butyl acetate	123864	550	1,600	NA	6.7E+6 (S)	6.7E+6 (S)	1.8E+6	6.70E+6	2.5E+6	6.7E+6 (S)
t-Butyl alcohol	75650	3,900	11,000	NA	1.0E+9 (D,S)	1.0E+9 (D,S)	7.9E+7	1.0E+9	6.1E+7	ID
Butyl benzyl phthalate	85687	1,200	2,700 (S)	14 (X)	NLV	NLV	2,700 (S)	2,690	ID	ID
n-Butylbenzene	104518	80	230	ID	ID	ID	5,900	NA	ID	ID
sec-Butylbenzene	135988	80	230	ID	ID	ID	4,400	NA	ID	ID
tert-Butylbenzene (I)	98066	80	230	ID	ID	ID	8,900	NA	ID	ID
Cadmium (B)	7440439	5.0 (A)	5.0 (A)	(G,X)	NLV	NLV	1.9E+5	NA	ID	ID
Camphene (I)	79925	ID	ID	NA	ID	ID	ID	33,400	ID	ID
Caprolactam	105602	5,800	17,000	NA	NLV	NLV	3.9E+8	5.25E+9	NA	1.0E+9 (D)
Carbaryl	63252	700	2,000	NA	ID	ID	1.3E+5 (S)	1.26E+5	ID	ID
Carbazole	86748	85	350	10 (M); 3.9	NLV	NLV	7,400	7,480	ID	ID
Carbofuran	1563662	40 (A)	40 (A)	NA	NLV	NLV	3.4E+5	7.00E+5	ID	ID
Carbon disulfide (I,R)	75150	800	2,300	ID	2.5E+5	5.5E+5	1.2E+6 (S)	1.19E+6	13,000	ID
Carbon tetrachloride	56235	5.0 (A)	5.0 (A)	45 (X)	370	2,400	4,600	7.93E+5	ID	96,000
Chlordane (J)	57749	2.0 (A)	2.0 (A)	NA	56 (S)	56 (S)	15 (AA)	56	ID	ID
Chloride	16887006	2.5E+5 (E)	2.5E+5 (E)	(FF)	NLV	NLV	ID	NA	ID	ID
Chlorobenzene (I)	108907	100 (A)	100 (A)	47	2.1E+5	4.7E+5 (S)	86,000	4.72E+5	1.6E+5	ID
para-Chlorobenzenesulfonic acid	98668	7,300	21,000	NA	ID	ID	ID	NA	ID	ID
1-Chloro-1,1-difluoroethane	75683	15,000	44,000	NA	3.9E+6 (S)	3.9E+6 (S)	3.9E+6 (S)	3.9E+06	NA	ID
Chloroethane	75003	430	1,700	ID	5.7E+6 (S)	5.7E+6 (S)	4.4E+5	5.74E+6	1.1E+5	ID
2-Chloroethyl vinyl ether	110758	ID	ID	NA	ID	ID	ID	1.50E+7	ID	ID

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

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Chloroform	67663	80 (A,W)	80 (A,W)	170 (X)	28,000	1.8E+5	1.5E+5	7.92E+6	ID	ID
Chloromethane (I)	74873	260	1,100	ID	8,600	45,000	4.9E+5	6.34E+6	36,000	2.1E+5
4-Chloro-3-methylphenol	59507	150	420	7.4	NLV	NLV	79,000	3.90E+6	ID	ID
beta-Chloronaphthalene	91587	1,800	5,200	NA	ID	ID	6,700 (S)	6,740	ID	ID
2-Chlorophenol	95578	45	130	22	ID	ID	94,000	2.20E+7	ID	ID
o-Chlorotoluene (I)	95498	150	420	ID	2.2E+5	3.7E+5 (S)	44,000	3.73E+5	ID	ID
Chlorpyrifos	2921882	22	63	2.0 (M); 0.002	2.9	6.6	1,100 (S)	1,120	ID	ID
Chromium (III) (B,H)	16065831	100 (A)	100 (A)	(G,X)	NLV	NLV	2.9E+8	NA	ID	ID
Chromium (VI)	18540299	100 (A)	100 (A)	11	NLV	NLV	4.6E+5	NA	ID	ID
Chrysene (Q)	218019	1.6 (S)	1.6 (S)	ID	ID	ID	1.6 (S,AA)	1.6	ID	ID
Cobalt	7440484	40	100	100	NLV	NLV	2.4E+6	NA	ID	ID
Copper (B)	7440508	1,000 (E)	1,000 (E)	(G)	NLV	NLV	7.4E+6	NA	ID	ID
Cyanazine	21725462	2.3	9.4	56 (X)	NLV	NLV	2,800	1.70E+5	ID	ID
Cyanide (P,R)	57125	200 (A)	200 (A)	5.2	NLV	NLV	57,000	NA	ID	ID
Cyclohexanone	108941	33,000	94,000	NA	1,500	3,300	2.3E+7 (S)	2.30E+7	NA	ID
Dacthal	1861321	73	210	NA	NLV	NLV	500 (S)	500	ID	ID
Dalapon	75990	200 (A)	200 (A)	NA	NLV	NLV	1.2E+7	5.02E+8	ID	ID
4-4'-DDD	72548	9.1	37	NA	NLV	NLV	44 (AA)	90	ID	ID
4-4'-DDE	72559	4.3	15	NA	NLV	NLV	27 (AA)	120	ID	ID
4-4'-DDT	50293	3.6	10	0.02 (M); 1.1E-5	NLV	NLV	13 (AA)	25	NA	ID
Decabromodiphenyl ether	1163195	30 (S)	30 (S)	NA	30 (S)	30 (S)	30 (S)	30	ID	ID
Di-n-butyl phthalate	84742	880	2,500	9.7	NLV	NLV	11,000 (S)	11,200	NA	ID
Di(2-ethylhexyl) adipate	103231	400 (A)	400 (A)	ID	NLV	NLV	470 (S)	471	ID	ID
Di-n-octyl phthalate	117840	130	380	ID	NLV	NLV	400	3,000	ID	ID
Diacetone alcohol (I)	123422	ID	ID	NA	NLV	NLV	ID	1.0E+9	1.0E+9 (S)	ID
Diazinon	333415	1.3	3.8	NA	NLV	NLV	1,300	68,800	NA	ID

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Dibenzo(a,h)anthracene (Q)	53703	2.0 (M); 0.21	2.0 (M); 0.85	ID	NLV	NLV	2.0 (M,AA); 0.31	2.49	ID	ID
Dibenzofuran	132649	ID	ID	4	ID	ID	ID	10,000	ID	ID
Dibromochloromethane	124481	80 (A,W)	80 (A,W)	ID	14,000	1.1E+5	18,000	2.60E+6	ID	ID
Dibromochloropropane	96128	0.2 (A)	0.2 (A)	NA	1,200 (S)	1,200 (S)	390	1,230	NA	ID
Dibromomethane	74953	80	230	NA	ID	ID	5.3E+5	1.10E+7	ID	ID
Dicamba	1918009	220	630	NA	NLV	NLV	5.9E+5	4.5E+6	ID	ID
1,2-Dichlorobenzene	95501	600 (A)	600 (A)	16	1.6E+5 (S)	1.6E+5 (S)	1.6E+5 (S)	1.56E+5	NA	1.6E+5 (S)
1,3-Dichlorobenzene	541731	6.6	19	38	ID	ID	2,000	1.11E+5	ID	ID
1,4-Dichlorobenzene	106467	75 (A)	75 (A)	13	16,000	74,000 (S)	6,400	73,800	NA	ID
3,3'-Dichlorobenzidine	91941	1.1	4.3	0.3 (X)	NLV	NLV	180	3,110	ID	ID
Dichlorodifluoromethane	75718	1,700	4,800	ID	2.2E+5	3.0E+5 (S)	3.0E+5 (S)	3.00E+5	ID	ID
1,1-Dichloroethane	75343	880	2,500	740	1.0E+6	2.3E+6	2.4E+6	5.06E+6	3.8E+5	ID
1,2-Dichloroethane (I)	107062	5.0 (A)	5.0 (A)	360 (X)	9,600	59,000	19,000	8.52E+6	2.5E+6	ID
1,1-Dichloroethylene (I)	75354	7.0 (A)	7.0 (A)	65 (X)	200	1,300	11,000	2.25E+6	97,000	1.4E+5
cis-1,2-Dichloroethylene	156592	70 (A)	70 (A)	620	93,000	2.1E+5	2.0E+5	3.50E+6	5.3E+5	ID
trans-1,2-Dichloroethylene	156605	100 (A)	100 (A)	1,500	85,000	2.0E+5	2.2E+5	6.30E+6	2.3E+5	ID
2,6-Dichloro-4-nitroaniline	99309	2,200	6,300	NA	NLV	NLV	7,000 (S)	7,000	ID	ID
2,4-Dichlorophenol	120832	73	210	19	NLV	NLV	48,000	4.50E+6	ID	ID
2,4-Dichlorophenoxyacetic acid	94757	70 (A)	70 (A)	220	NLV	NLV	1.2E+5	6.80E+5	ID	ID
1,2-Dichloropropane (I)	78875	5.0 (A)	5.0 (A)	290 (X)	16,000	36,000	16,000	2.80E+6	5.5E+5	2.8E+6 (S)
1,3-Dichloropropene	542756	8.5	35	NA	3,900	26,000	5,500	2.80E+6	1.3E+5	ID
Dichlorovos	62737	1.6	6.7	NA	NLV	NLV	5,900	1.60E+7	NA	ID
Dicyclohexyl phthalate	84617	ID	ID	NA	ID	ID	ID	4,000	ID	ID
Dieldrin	60571	0.11	0.43	0.02 (M); 6.5E-6	200 (S)	200 (S)	2.4 (AA)	195	ID	ID
Diethyl ether	60297	10 (E)	10 (E)	ID	6.1E+7 (S)	6.1E+7 (S)	3.5E+7	6.10E+7	6.5E+5	6.1E+7 (S)
Diethyl phthalate	84662	5,500	16,000	110	NLV	NLV	1.1E+6 (S)	1.08E+6	NA	ID

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
Diethylene glycol monobutyl ether	112345	88	250	NA	NLV	NLV	4.0E+6	1.0E+9	ID	ID
Diisopropyl ether	108203	30	86	ID	8,000 (S)	8,000 (S)	8,000 (S)	8,041	8,000 (S)	ID
Diisopropylamine (I)	108189	5.6	16	NA	ID	ID	21,000	3.69E+7	4.6E+6	ID
Dimethyl phthalate	131113	73,000	2.1E+5	NA	NLV	NLV	4.2E+6 (S)	4.19E+6	NA	ID
N,N-Dimethylacetamide	127195	180	520	4,100 (X)	NLV	NLV	2.3E+7	1.0E+9	NA	ID
N,N-Dimethylaniline	121697	16	46	NA	2.4E+5	1.3E+6 (S)	20,000	1.27E+6	NA	1.3E+6 (S)
Dimethylformamide (I)	68122	700	2,000	NA	NLV	NLV	1.1E+8	1.0E+9	ID	ID
2,4-Dimethylphenol	105679	370	1,000	380	NLV	NLV	5.2E+5	7.87E+6	ID	ID
2,6-Dimethylphenol	576261	4.4	13	NA	NLV	NLV	6,300	6.14E+6	ID	ID
3,4-Dimethylphenol	95658	10	29	NA	NLV	NLV	18,000	4.93E+6	ID	ID
Dimethylsulfoxide	67685	2.2E+5	6.3E+5	1.9E+5	NLV	NLV	1.7E+8 (S)	1.66E+8	ID	ID
2,4-Dinitrotoluene	121142	7.7	32	NA	NLV	NLV	8,600	2.70E+5	ID	ID
Dinoseb	88857	7.0 (A)	7.0 (A)	1.0 (M); 0.48	NLV	NLV	7,000	52,000	ID	ID
1,4-Dioxane (I)	123911	85	350	2,800 (X)	NLV	NLV	1.7E+6	9.00E+8	1.4E+8	ID
Diquat	85007	20 (A)	20 (A)	NA	NLV	NLV	7.0E+5 (S)	7.00E+5	ID	ID
Diuron	330541	31	90	NA	NLV	NLV	37,000 (S)	37,300	ID	ID
Endosulfan (J)	115297	44	130	0.03	ID	ID	510 (S)	510	ID	ID
Endothall	145733	100 (A)	100 (A)	NA	NLV	NLV	2.5E+7 (AA)	1.00E+8	ID	ID
Endrin	72208	2.0 (A)	2.0 (A)	NA	NLV	NLV	160 (AA)	250	ID	ID
Epichlorohydrin (I)	106898	5.0 (M); 2.0 (A)	5.0 (M); 2.0 (A)	NA	3.2E+5	6.3E+5	11,000	6.60E+7	4.7E+7	ID
Ethanol (I)	64175	1.9E+6	3.8E+6	NA	NLV	NLV	1.0E+9 (S)	1.0E+9	9.7E+7	ID
Ethyl acetate (I)	141786	6,600	19,000	NA	6.4E+7 (S)	6.4E+7 (S)	6.4E+7 (S)	6.40E+7	4.2E+6	ID
Ethyl-tert-butyl ether (ETBE)	637923	49 (E)	49 (E)	NA	2.9E+6	5.6E+6 (S)	ID	5.63E+6	ID	ID
Ethylbenzene (I)	100414	74 (E)	74 (E)	18	1.1E+5	1.7E+5 (S)	1.7E+5 (S)	1.69E+5	43,000	1.7E+5 (S)
Ethylene dibromide	106934	0.05 (A)	0.05 (A)	0.2 (X)	2,400	15,000	25	4.20E+6	ID	ID
Ethylene glycol	107211	15,000	42,000	1.9E+5 (X)	NLV	NLV	1.0E+9 (S)	1.0E+9	NA	1.0E+9 (S)

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Ethylene glycol monobutyl ether	111762	3,700	10,000	NA	2.9E+6	6.5E+6	5.3E+7	2.24E+8	NA	ID
Fluoranthene	206440	210 (S)	210 (S)	1.6	210 (S)	210 (S)	210 (S)	206	ID	ID
Fluorene	86737	880	2,000 (S)	12	2,000 (S)	2,000 (S)	2,000 (S)	1,980	ID	ID
Fluorine (soluble fluoride) (B)	7782414	2,000 (E)	2,000 (E)	NA	NLV	NLV	1.2E+7	NA	ID	ID
Formaldehyde	50000	1,300	3,800	120	63,000	3.6E+5	3.0E+7	5.50E+8	ID	61,000
Formic acid (I,U)	64186	10,000	29,000	ID	7.7E+6	1.5E+7	6.0E+8	1.0E+9	1.0E+9 (D)	3.5E+8
1-Formylpiperidine	2591868	80	230	NA	ID	ID	ID	NA	ID	ID
Gentian violet	548629	15	63	NA	NLV	NLV	1.0E+6 (S)	1.00E+6	ID	ID
Glyphosate	1071836	700 (A)	700 (A)	NA	NLV	NLV	1.2E+7 (S,AA)	1.16E+7	ID	ID
Heptachlor	76448	0.4 (A)	0.4 (A)	0.01 (M,X); 0.0018	180 (S)	180 (S)	2.9 (AA)	180	ID	ID
Heptachlor epoxide	1024573	0.2 (A)	0.2 (A)	ID	NLV	NLV	9.0 (AA)	200	ID	ID
n-Heptane	142825	2,700 (S)	2,700 (S)	NA	2,700 (S)	2,700 (S)	2,700 (S)	2,690	200	2,700 (S)
Hexabromobenzene	87821	0.17 (S); 20	0.17 (S); 58	ID	ID	ID	0.17 (S); 1,500	0.17	ID	ID
Hexachlorobenzene (C-66)	118741	1.0 (A)	1.0 (A)	0.2 (M); 0.0003	440	3,000	4.6	6,200	ID	ID
Hexachlorobutadiene (C-46)	87683	15	42	0.05	1,600	3,200 (S)	400	3,230	ID	ID
alpha-Hexachlorocyclohexane	319846	0.43	1.7	NA	2,000 (S)	2,000 (S)	60	2,000	ID	ID
beta-Hexachlorocyclohexane	319857	0.88	3.6	ID	NLV	NLV	120	240	ID	ID
Hexachlorocyclopentadiene (C-56)	77474	50 (A)	50 (A)	ID	130	420	1,600	1,800	ID	ID
Hexachloroethane	67721	7.3	21	6.7 (X)	27,000	50,000 (S)	1,900	50,000	ID	ID
n-Hexane	110543	3,000	8,600	NA	12,000 (S)	12,000 (S)	12,000 (S)	12,000	12,000 (S)	ID
2-Hexanone	591786	1,000	2,900	NA	4.2E+6	8.7E+6	5.2E+6	1.60E+7	NA	ID
Indeno(1,2,3-cd)pyrene (Q)	193395	2.0 (M); 0.022 (S)	2.0 (M); 0.022 (S)	ID	NLV	NLV	2.0 (M, AA); 0.022 (S)	0.022	ID	ID
Iron (B)	7439896	300 (E)	300 (E)	NA	NLV	NLV	5.8E+7	NA	ID	ID
Isobutyl alcohol (I)	78831	2,300	6,700	NA	7.6E+7 (S)	7.6E+7 (S)	2.5E+7	7.60E+7	ID	ID
Isophorone	78591	770	3,100	570 (X)	NLV	NLV	9.9E+5	1.20E+7	ID	1.2E+7 (S)
Isopropyl alcohol (I)	67630	470	1,300	57,000 (X)	NLV	NLV	1.3E+7	1.0E+9	6.0E+7	1.0E+9 (S)

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Isopropyl benzene	98828	800	2,300	ID	56,000 (S)	56,000 (S)	56,000 (S)	56,000	29,000	ID
Lead (B)	7439921	4.0 (L)	4.0 (L)	(G,X)	NLV	NLV	ID	NA	ID	ID
Lindane	58899	0.2 (A)	0.2 (A)	0.03	ID	ID	190	6,800	ID	ID
Lithium (B)	7439932	170	350	96	NLV	NLV	5.4E+6	NA	ID	ID
Magnesium (B)	7439954	4.0E+5	1.1E+6	NA	NLV	NLV	1.0E+9 (D)	NA	ID	ID
Manganese (B)	7439965	50 (E)	50 (E)	(G,X)	NLV	NLV	9.1E+6	NA	ID	ID
Mercury (Total) (B,Z)	Varies	2.0 (A)	2.0 (A)	0.0013	56 (S)	56 (S)	56 (S)	56	ID	ID
Methane (K)	74828	ID	ID	NA	(K)	(K)	ID	NA	520	ID
Methanol	67561	3,700	10,000	480	2.9E+7 (S)	2.9E+7 (S)	2.9E+7 (S)	2.90E+7	4.5E+6	2.9E+7 (S)
Methoxychlor	72435	40 (A)	40 (A)	NA	ID	ID	45 (S)	45	ID	ID
2-Methoxyethanol (I)	109864	7.3	21	NA	NLV	NLV	8.3E+5	1.0E+9	ID	ID
2-Methyl-4-chlorophenoxyacetic acid	94746	7.3	21	NA	NLV	NLV	9,200	9.24E+5	ID	ID
2-Methyl-4,6-dinitrophenol	534521	20 (M); 2.6	20 (M); 7.3	NA	NLV	NLV	9,500	2.00E+5	ID	ID
N-Methyl-morpholine (I)	109024	20	56	NA	NLV	NLV	1.5E+6	1.0E+9	ID	ID
Methyl parathion	298000	1.8	5.2	NA	NLV	NLV	3,000	50,000	ID	ID
4-Methyl-2-pentanone (MIBK) (I)	108101	1,800	5,200	ID	2.0E+7 (S)	2.0E+7 (S)	1.3E+7	2.00E+7	ID	2.0E+7 (S)
Methyl-tert-butyl ether (MTBE)	1634044	40 (E)	40 (E)	730 (X)	4.7E+7 (S)	4.7E+7 (S)	6.1E+5	4.68E+7	ID	ID
Methylcyclopentane (I)	96377	ID	ID	NA	ID	ID	ID	73,890	ID	ID
4,4'-Methylene-bis-2-chloroaniline (MBOCA)	101144	1.1	4.5	NA	NLV	NLV	110 (AA)	14,000	ID	ID
Methylene chloride	75092	5.0 (A)	5.0 (A)	940 (X)	2.2E+5	1.4E+6	2.2E+5	1.70E+7	ID	ID
2-Methylnaphthalene	91576	260	750	ID	ID	ID	25,000 (S)	24,600	ID	ID
Methylphenols (J)	1319773	370	1,000	71	NLV	NLV	8.1E+5	2.80E+7	NA	ID
Metolachlor	51218452	240	990	NA	NLV	NLV	91,000	5.30E+5	ID	ID
Metribuzin	21087649	180	520	NA	ID	ID	1.2E+6 (S)	1.2E+6	ID	ID
Mirex	2385855	0.02 (M); 6.8E-6 (S)	0.02 (M); 6.8E-6 (S)	0.02 (M); 6.8E-6 (S)	ID	ID	0.02 (M); 6.8E-6 (S)	6.8E-6	NA	ID
Molybdenum (B)	7439987	73	210	800 (X)	NLV	NLV	9.7E+5	NA	ID	ID

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Naphthalene	91203	520	1,500	13	31,000 (S)	31,000 (S)	31,000 (S)	31,000	NA	31,000 (S)
Nickel (B)	7440020	100 (A)	100 (A)	(G)	NLV	NLV	7.4E+7	NA	ID	ID
Nitrate (B,N)	14797558	10,000 (A,N)	10,000 (A,N)	NA	NLV	NLV	3.1E+8	NA	ID	ID
Nitrite (B,N)	14797650	1,000 (A,N)	1,000 (A,N)	NA	NLV	NLV	ID	NA	ID	ID
Nitrobenzene (I)	98953	3.4	9.6	180 (X)	2.8E+5	5.5E+5	11,000	2.09E+6	NA	ID
2-Nitrophenol	88755	20	58	ID	NLV	NLV	79,000	2.50E+6	ID	ID
n-Nitroso-di-n-propylamine	621647	5.0 (M); 0.19	5.0 (M); 0.77	NA	NLV	NLV	360	9.89E+6	ID	ID
N-Nitrosodiphenylamine	86306	270	1,100	NA	NLV	NLV	35,000 (S)	35,100	ID	ID
Oxamyl	23135220	200 (A)	200 (A)	NA	NLV	NLV	6.2E+7	2.80E+8	ID	ID
Oxo-hexyl acetate	88230357	73	210	NA	ID	ID	ID	NA	ID	ID
Pendimethalin	40487421	280 (S)	280 (S)	NA	NLV	NLV	280 (S)	275	ID	ID
Pentachlorobenzene	608935	6.1	17	5.0 (M); 0.019	ID	ID	240	650	ID	ID
Pentachloronitrobenzene	82688	32 (S)	32 (S)	NA	32 (S)	32 (S)	32 (S)	32	ID	ID
Pentachlorophenol	87865	1.0 (A)	1.0 (A)	(G,X)	NLV	NLV	200	1.85E+6	ID	ID
Pentane	109660	ID	ID	NA	38,000 (S)	38,000 (S)	ID	38,200	340	38,000 (S)
2-Pentene (I)	109682	ID	ID	NA	ID	ID	ID	2.03E+5	ID	ID
pH	NA	6.5 to 8.5 (E)	6.5 to 8.5 (E)	6.5 to 9.0	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	52	150	2.4	1,000 (S)	1,000 (S)	1,000 (S)	1,000	ID	ID
Phenol	108952	4,400	13,000	210	NLV	NLV	2.9E+7	8.28E+7	NA	ID
Phosphorus (Total)	7723140	63,000	2.4E+5	(EE)	NLV	NLV	ID	NA	ID	ID
Phthalic acid	88993	14,000	40,000	NA	NLV	NLV	1.4E+7 (S)	1.42E+7	ID	ID
Phthalic anhydride	85449	15,000	44,000	NA	NLV	NLV	6.2E+6 (S)	6.2E+6	NA	ID
Picloram	1918021	500 (A)	500 (A)	46	NLV	NLV	4.3E+5 (S)	4.30E+5	ID	ID
Piperidine	110894	3.2	9.2	NA	NLV	NLV	34,000	1.0E+9	ID	ID
Polybrominated biphenyls (J)	67774327	0.03	0.09	NA	NLV	NLV	ID	1.66E+7	ID	ID
Polychlorinated biphenyls (PCBs) (J,T)	1336363	0.5 (A)	0.5 (A)	0.2 (M); 2.6E-5	45 (S)	45 (S)	3.3 (AA)	44.7	ID	ID

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Prometon	1610180	160	460	NA	NLV	NLV	1.8E+5	7.50E+5	ID	ID
Propachlor	1918167	95	270	NA	NLV	NLV	4.4E+5	6.55E+5	ID	ID
Propazine	139402	200	560	NA	NLV	NLV	8,600 (S)	8,600	ID	ID
Propionic acid	79094	12,000	35,000	ID	NLV	NLV	2.8E+8	1.0E+9	1.0E+9 (D)	ID
Propyl alcohol (I)	71238	1,400	4,000	NA	NLV	NLV	2.8E+7	1.0E+9	7.1E+7	1.0E+9 (S)
n-Propylbenzene (I)	103651	80	230	ID	ID	ID	15,000	NA	ID	ID
Propylene glycol	57556	1.5E+5	4.2E+5	2.9E+5	NLV	NLV	1.0E+9 (D,S)	1.0E+9	ID	ID
Pyrene	129000	140 (S)	140 (S)	ID	140 (S)	140 (S)	140 (S)	135	ID	ID
Pyridine (I)	110861	20 (M); 7.3	21	NA	5,500	12,000	94,000	3.00E+5	81,000	ID
Selenium (B)	7782492	50 (A)	50 (A)	5.0	NLV	NLV	9.7E+5	NA	ID	ID
Silver (B)	7440224	34	98	0.2 (M); 0.06	NLV	NLV	1.5E+6	NA	ID	ID
Silvex (2,4,5-TP)	93721	50 (A)	50 (A)	30	NLV	NLV	43,000	1.40E+5	ID	ID
Simazine	122349	4.0 (A)	4.0 (A)	NA	NLV	NLV	4,500 (S)	4,470	ID	ID
Sodium	17341252	1.2E+5	3.5E+5	NA	NLV	NLV	1.0E+9 (D)	NA	ID	ID
Sodium azide	26628228	88	250	NA	ID	ID	ID	NA	ID	ID
Strontium (B)	7440246	4,600	13,000	2,300 (X)	NLV	NLV	1.2E+8	NA	ID	ID
Styrene	100425	100 (A)	100 (A)	80	1.7E+5	3.1E+5 (S)	9,700	3.10E+5	1.4E+5	3.1E+5 (S)
Sulfate	14808798	2.5E+5 (E)	2.5E+5 (E)	NA	NLV	NLV	ID	NA	ID	ID
Tebuthiuron	34014181	510	1,500	NA	NLV	NLV	2.5E+6 (S)	2.50E+6	ID	ID
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	(O)	(O)	(O)	NLV	NLV	(O)	0.00996	ID	ID
1,2,4,5-Tetrachlorobenzene	95943	1,300 (S)	1,300 (S)	2.9 (X)	ID	ID	1,300 (S)	1,300	ID	ID
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	3.0E-5 (A)	3.0E-5 (A)	1.0E-5 (M); 3E-9	NLV	NLV	1.0E-5 (M,O,AA)	0.019	ID	ID
1,1,1,2-Tetrachloroethane	630206	77	320	ID (X)	15,000	96,000	30,000	1.10E+6	ID	ID
1,1,2,2-Tetrachloroethane	79345	8.5	35	78 (X)	12,000	77,000	4,700	2.97E+6	ID	ID
Tetrachloroethylene	127184	5.0 (A)	5.0 (A)	45 (X)	25,000	1.7E+5	12,000	2.0E+5	ID	2.0E+5 (S)
Tetrahydrofuran	109999	95	270	11,000 (X)	6.9E+6	1.6E+7	1.6E+6	1.0E+9	60,000	3.6E+6

TABLE 1. GROUNDWATER: RESIDENTIAL AND INDUSTRIAL-COMMERCIAL PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
Tetranitromethane	509148	ID	ID	NA	580	3,200	ID	85,000	ID	ID
Thallium (B)	7440280	2.0 (A)	2.0 (A)	3.7 (X)	NLV	NLV	13,000	NA	ID	ID
Toluene (I)	108883	790 (E)	790 (E)	140	5.3E+5 (S)	5.3E+5 (S)	5.3E+5 (S)	5.26E+5	61,000	ID
p-Toluidine	106490	15	62	NA	NLV	NLV	24,000	7.60E+6	NA	ID
Total dissolved solids (TDS)	NA	5.0E+5 (E)	5.0E+5 (E)	(EE)	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	3.0 (A)	3.0 (A)	1.0 (M); 6.8E-5	NLV	NLV	44	740	ID	740 (S)
Triallate	2303175	95	270	NA	ID	ID	4,000 (S)	4,000	ID	ID
Tributylamine	102829	10	29	ID	14,000	32,000	2,300	75,400	ID	ID
1,2,4-Trichlorobenzene	120821	70 (A)	70 (A)	30	3.0E+5 (S)	3.0E+5 (S)	19,000	3.00E+5	NA	3.0E+5 (S)
1,1,1-Trichloroethane	71556	200 (A)	200 (A)	200	6.6E+5	1.3E+6 (S)	1.3E+6 (S)	1.33E+6	ID	1.3E+6 (S)
1,1,2-Trichloroethane	79005	5.0 (A)	5.0 (A)	330 (X)	17,000	1.1E+5	21,000	4.42E+6	NA	ID
Trichloroethylene	79016	5.0 (A)	5.0 (A)	200 (X)	15,000	97,000	22,000	1.10E+6	ID	1.1E+6 (S)
Trichlorofluoromethane	75694	2,600	7,300	NA	1.1E+6 (S)	1.1E+6 (S)	1.1E+6 (S)	1.10E+6	ID	1.1E+6 (S)
2,4,5-Trichlorophenol	95954	730	2,100	NA	NLV	NLV	1.7E+5	1.20E+6	ID	ID
2,4,6-Trichlorophenol	88062	120	470	4.4	NLV	NLV	10,000	8.00E+5	ID	ID
1,2,3-Trichloropropane	96184	42	120	NA	ID	ID	84,000	1.90E+6	NA	ID
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	1.7E+5 (S)	1.7E+5 (S)	32	1.7E+5 (S)	1.7E+5 (S)	1.7E+5 (S)	1.70E+5	ID	1.7E+5 (S)
Triethanolamine	102716	3,700	10,000	NA	NLV	NLV	1.0E+9 (D,S)	1.0E+9	ID	ID
Triethylene glycol	112276	4,300	12,000	NA	NLV	NLV	1.0E+6 (S)	1.00E+6	ID	ID
3-Trifluoromethyl-4-nitrophenol	88302	4,500	13,000	NA	NLV	NLV	5.0E+6 (S)	5.00E+6	ID	ID
Trifluralin	1582098	37	110	NA	ID	ID	2,400	8,100	ID	ID
2,2,4-Trimethyl pentane	540841	ID	ID	NA	ID	ID	ID	2,330	160	ID
2,4,4-Trimethyl-2-pentene (I)	107404	ID	ID	NA	ID	ID	ID	11,900	ID	ID
1,2,4-Trimethylbenzene (I)	95636	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	56,000 (S)	55,890	56,000 (S)	ID
1,3,5-Trimethylbenzene (I)	108678	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,000 (S)	61,150	ID	ID
Triphenyl phosphate	115866	1,200	1,400 (S)	NA	NLV	NLV	1,400 (S)	1,430	ID	ID

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Guidesheet Number →		#1	#2	#3	#4	#5	#6	#7	#8	#9
	Chemical Abstract Service Number	**Residential & Commercial I Drinking Water Criteria & RBSLs**	**Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs**	**Groundwater Surface Water Interface Criteria & RBSLs**	**Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Groundwater Contact Criteria & RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**
tris(2,3-Dibromopropyl)phosphate	126727	10 (M); 0.71	10 (M); 2.9	NA	4,700 (S)	4,700 (S)	2,100	4,700	ID	ID
Urea	57136	ID (N)	ID (N)	NA	NLV	NLV	ID	NA	ID	ID
Vanadium	7440622	4.5	62	12	NLV	NLV	9.7E+5	NA	ID	ID
Vinyl acetate (I)	108054	640	1,800	NA	4.1E+6	8.9E+6	8.0E+6	2.00E+7	1.8E+6	4.8E+6
Vinyl chloride	75014	2.0 (A)	2.0 (A)	15	1,100	13,000	1,000	2.76E+6	33,000	ID
White phosphorus (R)	12185103	0.11	0.31	NA	NLV	NLV	2,900	NA	ID	ID
Xylenes (I)	1330207	280 (E)	280 (E)	35	1.9E+5 (S)	1.9E+5 (S)	1.9E+5 (S)	1.86E+5	70,000	1.9E+5 (S)
Zinc (B)	7440666	2,400	5,000 (E)	(G)	NLV	NLV	1.1E+8	NA	ID	ID
Water Quality Characteristic										
Dissolved oxygen (DO)	NA	NA	NA	(EE)	NA	NA	NA	NA	NA	NA

TABLE 2. SOIL: RESIDENTIAL AND COMMERCIAL I
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PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

All criteria, unless otherwise noted, are expressed in units of parts per billion (ppb). One ppb is equivalent to one microgram per kilogram (ug/kg). Criteria with six or more digits are expressed in scientific notation. For example, 200,000 ppb is presented as 2.0E+5. The lowest generic soil criterion for a given hazardous substance is presented in a bold box. A footnote is designated by a letter in parentheses and is explained in the footnote pages that follow the criteria tables. When the risk-based criterion is less than the target detection limit (TDL), the TDL is listed as the criterion (R 299.5707). In these cases, two numbers are presented in the cell. The first number is the criterion (i.e., TDL), and the second number is the risk-based value. Criteria were promulgated December 21, 2002 within the Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. These tables reflect modifications to the TDLs and new criteria consistent with the provisions of R299.5103(l) and R299.5706a, respectively.

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Acenaphthene	83329	NA	3.0E+5	4,400	9.7E+5	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA
Acenaphthylene	208968	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA
Acetaldehyde (I)	75070	NA	19,000	2,600	1.1E+8 (C)	2.2E+5	1.7E+5	1.7E+5	2.8E+5	6.0E+8	2.9E+7	1.1E+8
Acetate	71501	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Acetic acid	64197	NA	84,000	3.6E+5	6.5E+8 (C)	NLV	NLV	NLV	NLV	1.7E+10	1.3E+8	6.5E+8
Acetone (I)	67641	NA	15,000	34,000	1.1E+8 (C)	1.1E+8 (C)	1.3E+8	1.3E+8	1.9E+8	3.9E+11	2.3E+7	1.1E+8
Acetonitrile	75058	NA	2,800	NA	2.2E+7 (C)	4.8E+6	1.6E+6	1.6E+6	2.1E+6	4.0E+9	4.3E+6	2.2E+7
Acetophenone	98862	NA	30,000	NA	1.1E+6 (C)	1.1E+6 (C)	4.4E+7	4.4E+7	4.4E+7	3.3E+10	1.1E+6 (C)	1.1E+6
Acrolein (I)	107028	NA	2,400	NA	2.3E+7 (C)	410	310	310	610	1.3E+6	3.6E+6	2.3E+7
Acrylamide	79061	NA	10	NA	2.6E+5	NLV	NLV	NLV	NLV	2.4E+6	1,900	NA
Acrylic acid	79107	NA	78,000	NA	1.1E+8 (C)	2.4E+6	1.9E+5	2.3E+5	2.3E+5	6.7E+7	3.5E+7 (DD)	1.1E+8
Acrylonitrile (I)	107131	NA	100 (M); 52	100 (M,X); 98	2.8E+5	6,600	5,000	5,100	10,000	4.6E+7	16,000	8.3E+6
Alachlor	15972608	NA	52	290 (X)	44,000	NLV	NLV	NLV	NLV	ID	93,000	NA
Aldicarb	116063	NA	60	NA	2.4E+6	NLV	NLV	NLV	NLV	ID	2.3E+5	NA
Aldicarb sulfoxide	1646873	NA	200 (M)	NA	5.4E+7	NLV	NLV	NLV	NLV	ID	2.9E+5	NA
Aldicarb sulfone	1646884	NA	200 (M); 40	NA	4.2E+7	NLV	NLV	NLV	NLV	ID	2.5E+5	NA
Aldrin	309002	NA	NLL	NLL	NLL	1.3E+6	58,000	58,000	58,000	6.4E+5	1,000	NA
Aluminum (B)	7429905	6.9E+6	1,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	5.0E+7 (DD)	NA
Ammonia	7664417	NA	ID	(CC)	ID	ID	ID	ID	ID	6.7E+9	ID	1.0E+7

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PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
t-Amyl methyl ether (TAME)	994058	NA	3,900	NA	4.4E+5 (C)	58,000	3.4E+5	7.6E+5	1.8E+6	4.1E+9	4.4E+5 (C)	4.4E+5
Aniline	62533	NA	1,100	330 (M); 80	2.8E+6	NLV	NLV	NLV	NLV	6.7E+7	3.3E+5	4.5E+6
Anthracene	120127	NA	41,000	ID	41,000	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA
Antimony	7440360	NA	4,300	94,000	4.9E+7	NLV	NLV	NLV	NLV	1.3E+7	1.8E+5	NA
Arsenic	7440382	5,800	4,600	70,000 (X)	2.0E+6	NLV	NLV	NLV	NLV	7.2E+5	7,600	NA
Asbestos (BB)	1332214	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.0E+7 (M); 68,000	ID	NA
Atrazine	1912249	NA	60	150 (X)	1.1E+5	NLV	NLV	NLV	NLV	ID	71,000 (DD)	NA
Azobenzene	103333	NA	4,200	NA	3.0E+5	6.1E+6	6.3E+5	ID	ID	1.0E+8	1.4E+5	NA
Barium (B)	7440393	75,000	1.3E+6	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA
Benzene (I)	71432	NA	100	4,000 (X)	2.2E+5	1,600	13,000	34,000	79,000	3.8E+8	1.8E+5	4.0E+5
Benzidine	92875	NA	1,000 (M); 6.0	ID	1,000 (M); 140	NLV	NLV	NLV	NLV	46,000	1,000 (M); 23	NA
Benzo(a)anthracene (Q)	56553	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA
Benzo(b)fluoranthene (Q)	205992	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA
Benzo(k)fluoranthene (Q)	207089	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.0E+5	NA
Benzo(g,h,i)perylene	191242	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.0E+8	2.5E+6	NA
Benzo(a)pyrene (Q)	50328	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA
Benzoic acid	65850	NA	6.4E+5	NA	7.0E+7	NLV	NLV	NLV	NLV	ID	9.9E+8	NA
Benzyl alcohol	100516	NA	2.0E+5	NA	5.8E+6 (C)	NLV	NLV	NLV	NLV	3.3E+11	5.8E+6 (C)	5.8E+6
Benzyl chloride	100447	NA	150	NA	72,000	6,300	14,000	14,000	17,000	6.2E+7	48,000	2.3E+5
Beryllium	7440417	NA	51,000	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.3E+6	4.1E+5	NA
bis(2-Chloroethoxy)ethane	112265	NA	ID	ID	ID	NLV	NLV	NLV	NLV	ID	ID	2.7E+6
bis(2-Chloroethyl)ether (I)	111444	NA	100	300	1.1E+5	8,300	3,800	3,800	3,800	9.4E+6	13,000	2.2E+6
bis(2-Ethylhexyl)phthalate	117817	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	7.0E+8	2.8E+6	1.0E+7
Boron (B)	7440428	NA	10,000	38,000	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	4.8E+7 (DD)	NA

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			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Bromate	15541454	NA	200	800	96,000	NLV	NLV	NLV	NLV	ID	17,000	NA
Bromobenzene (I)	108861	NA	550	NA	3.6E+5	3.1E+5	4.5E+5	4.5E+5	4.5E+5	5.3E+8	5.4E+5	7.6E+5
Bromodichloromethane	75274	NA	1,600 (W)	ID	2.8E+5	1,200	9,100	9,700	19,000	8.4E+7	1.1E+5	1.5E+6
Bromoform	75252	NA	1,600 (W)	ID	8.7E+5 (C)	1.5E+5	9.0E+5	9.0E+5	9.0E+5	2.8E+9	8.2E+5	8.7E+5
Bromomethane	74839	NA	200	700	1.4E+6	860	11,000	57,000	1.4E+5	3.3E+8	3.2E+5	2.2E+6
n-Butanol (I)	71363	NA	19,000	NA	8.7E+6 (C)	NLV	NLV	NLV	NLV	2.3E+10	8.7E+6 (C)	8.7E+6
2-Butanone (MEK) (I)	78933	NA	2.6E+5	44,000	2.7E+7 (C)	2.7E+7 (C)	2.9E+7	2.9E+7	3.5E+7	6.7E+10	2.7E+7 (C,DD)	2.7E+7
n-Butyl acetate	123864	NA	11,000	NA	1.1E+6 (C)	1.1E+6 (C)	1.1E+8	2.6E+8	3.2E+8	4.7E+11	1.1E+6 (C)	1.1E+6
t-Butyl alcohol	75650	NA	78,000	NA	1.1E+8 (C)	1.1E+8 (C)	9.7E+7	2.0E+8	2.0E+8	1.3E+11	1.1E+8 (C)	1.1E+8
Butyl benzyl phthalate	85687	NA	3.1E+5 (C)	26,000 (X)	3.1E+5 (C)	NLV	NLV	NLV	NLV	4.7E+10	3.1E+5 (C)	3.1E+5
n-Butylbenzene	104518	NA	1,600	ID	1.2E+5	ID	ID	ID	ID	ID	2.5E+6	1.0E+7
sec-Butylbenzene	135988	NA	1,600	ID	88,000	ID	ID	ID	ID	ID	2.5E+6	1.0E+7
t-Butylbenzene (I)	98066	NA	1,600	NA	1.8E+5	ID	ID	ID	ID	ID	2.5E+6	1.0E+7
Cadmium (B)	7440439	1,200	6,000	(G,X)	2.3E+8	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5	NA
Camphene (I)	79925	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	NA
Caprolactam	105602	NA	1.2E+5	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	6.7E+8	5.3E+7 (DD)	NA
Carbaryl	63252	NA	14,000	NA	2.6E+6	ID	ID	ID	ID	ID	2.2E+7	NA
Carbazole	86748	NA	9,400	1,100	8.2E+5	NLV	NLV	NLV	NLV	ID	5.3E+5	NA
Carbofuran	1563662	NA	800	NA	6.8E+6	NLV	NLV	NLV	NLV	ID	1.1E+6	NA
Carbon disulfide (I,R)	75150	NA	16,000	ID	2.8E+5 (C)	76,000	1.3E+6	7.9E+6	1.9E+7	4.7E+10	2.8E+5 (C,DD)	2.8E+5
Carbon tetrachloride	56235	NA	100	900 (X)	92,000	190	3,500	12,000	28,000	1.3E+8	96,000	3.9E+5
Chlordane (J)	57749	NA	NLL	NLL	NLL	1.1E+7	1.2E+6	1.2E+6	1.2E+6	3.1E+7	31,000	NA
Chloride	16887006	NA	5.0E+6	2.5E+6 (X)	ID	NLV	NLV	NLV	NLV	ID	5.0E+5 (F)	NA
Chlorobenzene (I)	108907	NA	2,000	940	2.6E+5 (C)	1.2E+5	7.7E+5	9.9E+5	2.1E+6	4.7E+9	2.6E+5 (C)	2.6E+5

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			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
para-Chlorobenzenesulfonic acid	98668	NA	1.5E+05	NA	NA	ID	ID	ID	ID	ID	2.3E+8	ID
1-Chloro-1,1-difluoroethane	75683	NA	3.0E+5	NA	9.6E+5 (C)	9.6E+5 (C)	7.9E+7	5.6E+8	1.4E+9	3.3E+12	9.6E+5 (C)	9.6E+5
Chloroethane	75003	NA	8,600	ID	9.5E+5 (C)	9.5E+5 (C)	3.0E+7	1.2E+8	2.8E+8	6.7E+11	9.5E+5 (C)	9.5E+5
2-Chloroethyl vinyl ether	110758	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	1.9E+6
Chloroform	67663	NA	1,600 (W)	3,400 (X)	1.5E+6 (C)	7,200	45,000	1.2E+5	2.7E+5	1.3E+9	1.2E+6	1.5E+6
Chloromethane (I)	74873	NA	5,200	ID	1.1E+6 (C)	2,300	40,000	4.1E+5	1.0E+6	4.9E+9	1.1E+6 (C)	1.1E+6
4-Chloro-3-methylphenol	59507	NA	5,800	280	3.0E+6	NLV	NLV	NLV	NLV	ID	4.5E+6	NA
beta-Chloronaphthalene	91587	NA	6.2E+5	NA	2.3E+6	ID	ID	ID	ID	ID	5.6E+7	NA
2-Chlorophenol	95578	NA	900	440	1.9E+6	ID	ID	ID	ID	ID	1.4E+6	1.9E+7
o-Chlorotoluene (I)	95498	NA	3,300	NA	5.0E+5 (C)	2.7E+5	1.2E+6	2.9E+6	6.3E+6	4.7E+9	5.0E+5 (C)	5.0E+5
Chlorpyrifos	2921882	NA	17,000	1,500	8.4E+5	130	4,600	23,000	55,000	1.3E+8	1.1E+7	NA
Chromium (III) (B,H)	16065831	18,000 (total)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	7.9E+8	NA
Chromium (VI)	18540299	NA	30,000	3,300	1.4E+8	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA
Chrysene (Q)	218019	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA
Cobalt	7440484	6,800	800	2,000	4.8E+7	NLV	NLV	NLV	NLV	1.3E+7	2.6E+6	NA
Copper (B)	7440508	32,000	5.8E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA
Cyanazine	21725462	NA	200	1,100 (X)	56,000	NLV	NLV	NLV	NLV	ID	14,000	NA
Cyanide (P,R)	57125	390 (total)	4,000	100	2.5E+5	NLV	NLV	NLV	NLV	2.5E+5	12,000	NA
Cyclohexanone	108941	NA	5.2E+6	NA	2.2E+8 (C)	17,000	1.0E+6	1.1E+7	2.7E+7	6.7E+10	2.2E+8 (C)	2.2E+8
Dacthal	1861321	NA	50,000	NA	3.4E+5	NLV	NLV	NLV	NLV	ID	2.3E+6	NA
Dalapon	75990	NA	4,000	NA	5.9E+7 (C)	NLV	NLV	NLV	NLV	ID	1.9E+7	5.9E+7
4-4'-DDD	72548	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	4.4E+7	95,000	NA
4-4'-DDE	72559	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	3.2E+7	45,000	NA
4-4'-DDT	50293	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	3.2E+7	57,000	NA

TABLE 2. SOIL: RESIDENTIAL AND COMMERCIAL I
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS;
PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Decabromodiphenyl ether	1163195	NA	1.4E+5	NA	1.4E+5	1.0E+9 (D)	8.6E+7	8.6E+7	8.6E+7	2.3E+9	3.8E+6	NA
Di-n-butyl phthalate	84742	NA	7.6E+5 (C)	11,000	7.6E+5 (C)	NLV	NLV	NLV	NLV	3.3E+9	7.6E+5 (C)	7.6E+5
Di(2-ethylhexyl) adipate	103231	NA	9.6E+5 (C)	NA	9.6E+5 (C)	NLV	NLV	NLV	NLV	9.2E+9	9.6E+5 (C,DD)	9.6E+5
Di-n-octyl phthalate	117840	NA	1.0E+8	ID	1.4E+8 (C)	NLV	NLV	NLV	NLV	ID	6.9E+6	1.4E+8
Diacetone alcohol (I)	123422	NA	ID	NA	ID	NLV	NLV	NLV	NLV	1.6E+11	ID	1.1E+8
Diazinon	333415	NA	95	NA	95,000	NLV	NLV	NLV	NLV	ID	12,000 (DD)	3.1E+5
Dibenzo(a,h)anthracene (Q)	53703	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2,000	NA
Dibenzofuran	132649	NA	ID	1,700	ID	ID	ID	ID	ID	ID	ID	NA
Dibromochloromethane	124481	NA	1,600 (W)	ID	3.6E+5	3,900	24,000	24,000	33,000	1.3E+8	1.1E+5	6.1E+5
Dibromochloropropane	96128	NA	10 (M); 4.0	NA	1,200 (C)	1,200 (C)	13,000	13,000	13,000	1.3E+7	1,200 (C)	1,200
Dibromomethane	74953	NA	1,600	NA	2.0E+6 (C)	ID	ID	ID	ID	ID	2.0E+6 (C)	2.0E+6
Dicamba	1918009	NA	4,400	NA	1.2E+7	NA	NLV	NLV	NLV	ID	3.4E+6	NA
1,2-Dichlorobenzene	95501	NA	14,000	360	2.1E+5 (C)	2.1E+5 (C)	3.9E+7	3.9E+7	5.2E+7	1.0E+11	2.1E+5 (C)	2.1E+5
1,3-Dichlorobenzene	541731	NA	170	1,100	51,000	ID	ID	ID	ID	ID	1.7E+5 (C)	1.7E+5
1,4-Dichlorobenzene	106467	NA	1,700	290	1.4E+5	19,000	77,000	77,000	1.1E+5	4.5E+8	4.0E+5	NA
3,3'-Dichlorobenzidine	91941	NA	2,000 (M); 28	2,000 (M,X); 510	4,600	NLV	NLV	NLV	NLV	6.5E+6	6,600	NA
Dichlorodifluoromethane	75718	NA	95,000	ID	1.0E+6 (C)	9.0E+5	5.3E+7	5.5E+8	1.4E+9	3.3E+12	1.0E+6 (C)	1.0E+6
1,1-Dichloroethane	75343	NA	18,000	15,000	8.9E+5 (C)	2.3E+5	2.1E+6	5.9E+6	1.4E+7	3.3E+10	8.9E+5 (C)	8.9E+5
1,2-Dichloroethane (I)	107062	NA	100	7,200 (X)	3.8E+5	2,100	6,200	11,000	26,000	1.2E+8	91,000	1.2E+6
1,1-Dichloroethylene (I)	75354	NA	140	1,300 (X)	2.2E+5	62	1,100	5,300	13,000	6.2E+7	2.0E+5	5.7E+5
cis-1,2-Dichloroethylene	156592	NA	1,400	12,000	6.4E+5 (C)	22,000	1.8E+5	4.2E+5	9.9E+5	2.3E+9	6.4E+5 (C)	6.4E+5
trans-1,2-Dichloroethylene	156605	NA	2,000	30,000	1.4E+6 (C)	23,000	2.8E+5	8.3E+5	2.0E+6	4.7E+9	1.4E+6 (C)	1.4E+6
2,6-Dichloro-4-nitroaniline	99309	NA	44,000	NA	1.4E+5	NLV	NLV	NLV	NLV	ID	6.8E+7	NA
2,4-Dichlorophenol	120832	NA	1,500	380	9.6E+5	NLV	NLV	NLV	NLV	5.1E+9	6.6E+5 (DD)	1.8E+6

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			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
2,4-Dichlorophenoxyacetic acid	94757	NA	1,400	4,400	2.4E+6	NLV	NLV	NLV	NLV	6.7E+9	2.5E+6	NA
1,2-Dichloropropane (I)	78875	NA	100	5,800 (X)	3.2E+5	4,000	25,000	50,000	1.1E+5	2.7E+8	1.4E+5	5.5E+5
1,3-Dichloropropene	542756	NA	170	NA	1.1E+5	1,000	18,000	68,000	1.6E+5	7.8E+8	10,000	6.2E+5
Dichlorovos	62737	NA	50 (M); 32	NA	1.2E+5	NLV	NLV	NLV	NLV	3.3E+7	10,000	2.2E+6
Dicyclohexyl phthalate	84617	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	NA
Dieldrin	60571	NA	NLL	NLL	NLL	1.4E+5	19,000	19,000	19,000	6.8E+5	1,100	NA
Diethyl ether	60297	NA	200	ID	7.4E+6 (C)	7.4E+6 (C)	8.5E+7	1.5E+8	3.4E+8	8.0E+11	7.4E+6 (C)	7.4E+6
Diethyl phthalate	84662	NA	1.1E+5	2,200	7.4E+5 (C)	NLV	NLV	NLV	NLV	3.3E+9	7.4E+5 (C)	7.4E+5
Diethylene glycol monobutyl ether	112345	NA	1,800	NA	8.0E+7	NLV	NLV	NLV	NLV	1.3E+9	2.7E+6	1.1E+8
Diisopropyl ether	108203	NA	600	ID	1,300 (C)	1,300 (C)	3.4E+5	7.6E+5	1.8E+6	4.1E+9	1,300 (C)	1,300
Diisopropylamine (I)	108189	NA	110	NA	4.2E+5	ID	ID	ID	ID	ID	1.7E+5	6.7E+6
Dimethyl phthalate	131113	NA	7.9E+5 (C)	NA	7.9E+5 (C)	NLV	NLV	NLV	NLV	3.3E+9	7.9E+5 (C)	7.9E+5
N,N-Dimethylacetamide	127195	NA	3,600	82,000 (X)	1.1E+8 (C)	NLV	NLV	NLV	NLV	ID	5.6E+6	1.1E+8
N,N-Dimethylaniline	121697	NA	320	NA	4.0E+5	1.7E+5	1.5E+5	1.5E+5	1.5E+5	2.6E+8	5.0E+5	8.0E+5
Dimethylformamide (I)	68122	NA	14,000	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	2.0E+9	2.2E+7	1.1E+8
2,4-Dimethylphenol	105679	NA	7,400	7,600	1.0E+7	NLV	NLV	NLV	NLV	4.7E+9	1.1E+7	NA
2,6-Dimethylphenol	576261	NA	330 (M); 88	NA	1.3E+5	NLV	NLV	NLV	NLV	ID	1.4E+5	NA
3,4-Dimethylphenol	95658	NA	330 (M); 200	NA	3.6E+5	NLV	NLV	NLV	NLV	ID	3.2E+5	NA
Dimethylsulfoxide	67685	NA	4.4E+6	3.8E+6	1.8E+7 (C)	NLV	NLV	NLV	NLV	ID	1.8E+7 (C)	1.8E+7
2,4-Dinitrotoluene	121142	NA	430	NA	1.7E+5	NLV	NLV	NLV	NLV	1.6E+7	48,000	NA
Dinoseb	88857	NA	300	200 (M); 43	1.4E+5 (C)	NLV	NLV	NLV	NLV	ID	66,000 (DD)	1.4E+5
1,4-Dioxane (I)	123911	NA	1,700	56,000	3.4E+7	NLV	NLV	NLV	NLV	5.7E+8	5.3E+5	9.7E+7
Diquat	85007	NA	400	NA	1.4E+7	NLV	NLV	NLV	NLV	ID	5.0E+5	NA
Diuron	330541	NA	620	NA	7.4E+5	NLV	NLV	NLV	NLV	4.7E+8	9.7E+5	NA

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			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Endosulfan (J)	115297	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	1.4E+6	NA
Endothall	145733	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	2.3E+9	3.8E+6	NA
Endrin	72208	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	65,000	NA
Epichlorohydrin (I)	106898	NA	100	NA	2.2E+5	64,000	31,000	31,000	35,000	6.7E+7	8,900	7.3E+6
Ethanol (I)	64175	NA	3.8E+7	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	1.3E+12	1.1E+8 (C,DD)	1.1E+8
Ethyl acetate (I)	141786	NA	1.3E+5	NA	7.5E+6 (C)	7.5E+6 (C)	4.9E+7	4.9E+7	9.8E+7	2.1E+11	7.5E+6 (C)	7.5E+6
Ethyl-tert-butyl ether (ETBE)	637923	NA	980	ID	ID	5.4E+5	1.9E+6	4.5E+6	1.1E+7	2.5E+10	ID	6.5E+5
Ethylbenzene (I)	100414	NA	1,500	360	1.4E+5 (C)	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	1.4E+5 (C)	1.4E+5
Ethylene dibromide	106934	NA	20 (M); 1.0	20 (M); 4.0	500	670	1,700	1,700	3,300	1.4E+7	92	8.9E+5
Ethylene glycol	107211	NA	3.0E+5	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	6.7E+10	1.1E+8 (C)	1.1E+8
Ethylene glycol monobutyl ether	111762	NA	74,000	NA	4.1E+7 (C)	7.4E+5	1.8E+7	1.5E+8	3.6E+8	8.7E+11	4.1E+7 (C)	4.1E+7
Fluoranthene	206440	NA	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA
Fluorene	86737	NA	3.9E+5	5,300	8.9E+5	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA
Fluorine (soluble fluoride) (B)	7782414	NA	40,000	NA	2.4E+8	NLV	NLV	NLV	NLV	ID	9.0E+6 (DD)	NA
Formaldehyde	50000	NA	26,000	2,400	6.0E+7 (C)	12,000	13,000	23,000	52,000	2.4E+8	4.1E+7	6.0E+7
Formic acid (I,U)	64186	NA	2.0E+5	ID	1.1E+8 (C)	1.5E+6	2.1E+5	1.4E+5	1.4E+5	1.3E+8	1.1E+8 (C)	1.1E+8
1-Formylpiperidine	2591868	NA	1,600	NA	ID	ID	ID	ID	ID	ID	2.5E+6	1.0E+7
Gentian violet	548629	NA	300	NA	2.0E+7	NLV	NLV	NLV	NLV	ID	96,000	NA
Glyphosate	1071836	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	1.1E+7 (DD)	NA
Heptachlor	76448	NA	NLL	NLL	NLL	3.5E+5	62,000	62,000	62,000	2.4E+6	5,600	NA
Heptachlor epoxide	1024573	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.2E+6	3,100	NA
n-Heptane	142825	NA	2.4E+5 (C)	NA	2.4E+5 (C)	2.4E+5 (C)	2.1E+7	4.4E+7	1.0E+8	2.3E+11	2.4E+5 (C)	2.4E+5
Hexabromobenzene	87821	NA	5,400	ID	5,400	ID	ID	ID	ID	ID	1.1E+6	NA
Hexachlorobenzene (C-66)	118741	NA	1,800	350	8,200	41,000	17,000	17,000	17,000	6.8E+6	8,900	NA

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Hexachlorobutadiene (C-46)	87683	NA	26,000	91	3.5E+5 (C)	1.3E+5	1.3E+5	1.3E+5	1.3E+5	1.4E+8	1.0E+5	3.5E+5
alpha-Hexachlorocyclohexane	319846	NA	18	NA	2,500	30,000	12,000	22,000	25,000	1.7E+6	2,600	NA
beta-Hexachlorocyclohexane	319857	NA	37	ID	5,100	NLV	NLV	NLV	NLV	5.9E+6	5,400	NA
Hexachlorocyclopentadiene (C-56)	77474	NA	3.2E+5	ID	7.2E+5 (C)	30,000	50,000	50,000	50,000	1.3E+7	7.2E+5 (C)	7.2E+5
Hexachloroethane	67721	NA	430	1,800 (X)	1.1E+5	40,000	5.5E+5	9.3E+5	9.3E+5	2.3E+8	2.3E+5	NA
n-Hexane	110543	NA	44,000 (C)	NA	44,000 (C)	44,000 (C)	3.0E+6	3.2E+6	6.2E+6	1.3E+10	44,000 (C)	44,000
2-Hexanone	591786	NA	20,000	NA	2.5E+6 (C)	9.9E+5	1.1E+6	1.1E+6	1.4E+6	2.7E+9	2.5E+6 (C)	2.5E+6
Indeno(1,2,3-cd)pyrene (Q)	193395	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA
Iron (B)	7439896	1.2E+7	6,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.6E+8	NA
Isobutyl alcohol (I)	78831	NA	46,000	NA	8.9E+6 (C)	8.9E+6 (C)	7.9E+7	7.9E+7	7.9E+7	1.0E+11	8.9E+6 (C)	8.9E+6
Isophorone	78591	NA	15,000	11,000 (X)	2.4E+6 (C)	NLV	NLV	NLV	NLV	1.2E+10	2.4E+6 (C)	2.4E+6
Isopropyl alcohol (I)	67630	NA	9,400	1.1E+6 (X)	1.1E+8 (C)	NLV	NLV	NLV	NLV	1.5E+10	1.4E+7	1.1E+8
Isopropyl benzene	98828	NA	91,000	ID	3.9E+5 (C)	3.9E+5 (C)	1.7E+6	1.7E+6	2.8E+6	5.8E+9	3.9E+5 (C)	3.9E+5
Lead (B)	7439921	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA
Lindane	58899	NA	20 (M); 7.0	20 (M); 0.99	7,100	ID	ID	ID	ID	ID	8,300	NA
Lithium (B)	7439932	9,800	3,400	1,900	1.1E+8	NLV	NLV	NLV	NLV	ID	4.2E+6 (DD)	NA
Magnesium (B)	7439954	NA	8.0E+6	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	6.7E+9	1.0E+9 (D)	NA
Manganese (B)	7439965	4.4E+5	1,000	(G,X)	1.8E+8	NLV	NLV	NLV	NLV	3.3E+6	2.5E+7	NA
Mercury (Total) (B,Z)	Varies	130	1,700	50 (M); 1.2	47,000	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA
Methane	74828	NA	ID	NA	ID	8.4E+6 ug/m3 (GG)	ID	ID	ID	ID	ID	ID
Methanol	67561	NA	74,000	9,600	3.1E+6 (C)	3.1E+6 (C)	3.1E+7	4.4E+7	9.6E+7	2.2E+11	3.1E+6 (C)	3.1E+6
Methoxychlor	72435	NA	16,000	NA	18,000	ID	ID	ID	ID	ID	1.9E+6	NA
2-Methoxyethanol (I)	109864	NA	150	NA	1.7E+7	NLV	NLV	NLV	NLV	1.3E+9	2.3E+5	1.1E+8
2-Methyl-4-chlorophenoxyacetic acid	94746	NA	390	NA	4.9E+5	NLV	NLV	NLV	NLV	ID	2.3E+5	NA

TABLE 2. SOIL: RESIDENTIAL AND COMMERCIAL I
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS;
PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
2-Methyl-4,6-dinitrophenol	534521	NA	830 (M); 400	NA	1.9E+5	NLV	NLV	NLV	NLV	ID	79,000	NA
N-Methyl-morpholine (I)	109024	NA	400	NA	3.0E+7	NLV	NLV	NLV	NLV	ID	6.1E+5	1.1E+8
Methyl parathion	298000	NA	46	NA	76,000	NLV	NLV	NLV	NLV	ID	56,000	NA
4-Methyl-2-pentanone (MIBK) (I)	108101	NA	36,000	ID	2.7E+6 (C)	2.7E+6 (C)	4.5E+7	4.5E+7	6.7E+7	1.4E+11	2.7E+6 (C)	2.7E+6
Methyl-tert-butyl ether (MTBE)	1634044	NA	800	15,000 (X)	5.9E+6 (C)	5.9E+6 (C)	2.5E+7	3.9E+7	8.7E+7	2.0E+11	1.5E+6	5.9E+6
Methylcyclopentane (I)	96377	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	3.5E+5
4,4'-Methylene-bis-2-chloroaniline (MBOCA)	101144	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.4E+7	6,800	NA
Methylene chloride	75092	NA	100	19,000 (X)	2.3E+6 (C)	45,000	2.1E+5	5.9E+5	1.4E+6	6.6E+9	1.3E+6	2.3E+6
2-Methylnaphthalene	91576	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA
Methylphenols (J)	1319773	NA	7,400	1,400	1.6E+7	NLV	NLV	NLV	NLV	6.7E+9	1.1E+7	NA
Metolachlor	51218452	NA	4,800	NA	4.4E+5 (C)	NLV	NLV	NLV	NLV	ID	4.4E+5 (C,DD)	4.4E+5
Metribuzin	21087649	NA	3,600	NA	2.4E+7	ID	ID	ID	ID	ID	9.6E+6	NA
Mirex	2385855	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	9,600	NA
Molybdenum (B)	7439987	NA	1,500	16,000 (X)	1.9E+7	NLV	NLV	NLV	NLV	ID	2.6E+6	NA
Naphthalene	91203	NA	35,000	870	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA
Nickel (B)	7440020	20,000	1.0E+5	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.3E+7	4.0E+7	NA
Nitrate (B,N)	14797558	NA	2.0E+5 (N)	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrite (B,N)	14797650	NA	20,000 (N)	NA	3.8E+8	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrobenzene (I)	98953	NA	330 (M); 68	3,600 (X)	2.2E+5	91,000	54,000	54,000	54,000	4.7E+7	1.0E+5	4.9E+5
2-Nitrophenol	88755	NA	400	ID	1.6E+6	NLV	NLV	NLV	NLV	ID	6.3E+5	NA
n-Nitroso-di-n-propylamine	621647	NA	330 (M); 100	NA	7,200	NLV	NLV	NLV	NLV	1.6E+6	1,200	1.5E+6
N-Nitrosodiphenylamine	86306	NA	5,400	NA	7.0E+5	NLV	NLV	NLV	NLV	ID	1.7E+6	NA
Oxamyl	23135220	NA	4,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	8.6E+6	NA
Oxo-hexyl acetate	88230357	NA	1,500	NA	ID	ID	ID	ID	ID	5.4E+9	2.3E+6	1.0E+7

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PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
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Pendimethalin	40487421	NA	1.1E+6	NA	1.1E+6	NLV	NLV	NLV	NLV	ID	4.6E+7	NA
Pentachlorobenzene	608935	NA	29,000	9,500	1.9E+5 (C)	ID	ID	ID	ID	ID	1.9E+5 (C)	1.9E+5
Pentachloronitrobenzene	82688	NA	37,000	NA	37,000	1.2E+5	2.3E+5	2.3E+5	2.3E+5	3.3E+8	1.7E+6	NA
Pentachlorophenol	87865	NA	22	(G,X)	4,300	NLV	NLV	NLV	NLV	1.0E+8	90,000	NA
Pentane	109660	NA	ID	NA	ID	2.4E+5 (C)	3.7E+7	3.1E+8	5.8E+8	1.2E+12	ID	2.4E+5
2-Pentene (I)	109682	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	2.2E+5
Phenanthrene	85018	NA	56,000	5,300	1.1E+6	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA
Phenol	108952	NA	88,000	4,200	1.2E+7 (C)	NLV	NLV	NLV	NLV	4.0E+10	1.2E+7 (C,DD)	1.2E+7
Phosphorus (Total)	7723140	NA	1.3E+6	(EE)	ID	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA
Phthalic acid	88993	NA	2.8E+5	NA	1.7E+6 (C)	NLV	NLV	NLV	NLV	ID	1.7E+6 (C)	1.7E+6
Phthalic anhydride	85449	NA	3.0E+5	NA	1.1E+6 (C)	NLV	NLV	NLV	NLV	ID	1.1E+6 (C)	1.1E+6
Picloram	1918021	NA	10,000	920	8.6E+6	NLV	NLV	NLV	NLV	ID	1.6E+7	NA
Piperidine	110894	NA	64	NA	6.8E+5	NLV	NLV	NLV	NLV	9.3E+9	99,000	1.2E+8
Polybrominated biphenyls (J)	67774327	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	1,200	NA
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NA	NLL	NLL	NLL	3.0E+6	2.4E+5	7.9E+6	7.9E+6	5.2E+6	(T)	NA
Prometon	1610180	NA	4,900	NA	5.5E+6	NLV	NLV	NLV	NLV	ID	5.0E+6	NA
Propachlor	1918167	NA	1,900	NA	8.8E+6	NLV	NLV	NLV	NLV	ID	2.9E+6	NA
Propazine	139402	NA	4,000	NA	1.7E+5	NLV	NLV	NLV	NLV	ID	6.1E+6	NA
Propionic acid	79094	NA	2.4E+5	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	2.0E+10	1.1E+8 (C)	1.1E+8
Propyl alcohol (I)	71238	NA	28,000	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	4.9E+10	1.3E+7 (DD)	1.1E+8
n-Propylbenzene (I)	103651	NA	1,600	NA	3.0E+5	ID	ID	ID	ID	1.3E+9	2.5E+6	1.0E+7
Propylene glycol	57556	NA	3.0E+6	5.8E+6	1.1E+8 (C)	NLV	NLV	NLV	NLV	4.0E+11	1.1E+8 (C)	1.1E+8
Pyrene	129000	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA
Pyridine (I)	110861	NA	400	NA	37,000 (C)	1,100	8,200	40,000	97,000	2.3E+8	37,000 (C)	37,000

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PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Selenium (B)	7782492	410	4,000	400	7.8E+7	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA
Silver (B)	7440224	1,000	4,500	100 (M); 27	2.0E+8	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA
Silvex (2,4,5-TP)	93721	NA	3,600	2,200	3.1E+6	NLV	NLV	NLV	NLV	ID	1.7E+6	NA
Simazine	122349	NA	80	NA	90,000	NLV	NLV	NLV	NLV	ID	1.2E+6	NA
Sodium	17341252	NA	2.5E+6	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA
Sodium azide	26628228	NA	1,800	NA	ID	ID	ID	ID	ID	ID	2.7E+6	NA
Strontium (B)	7440246	NA	92,000	46,000 (X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	3.3E+8	NA
Styrene	100425	NA	2,700	2,200	2.7E+5	2.5E+5	9.7E+5	9.7E+5	1.4E+6	5.5E+9	4.0E+5	5.2E+5
Sulfate	14808798	NA	5.0E+6	NA	ID	NLV	NLV	NLV	NLV	ID	ID	NA
Tebuthiuron	34014181	NA	10,000	NA	5.0E+7	NLV	NLV	NLV	NLV	ID	4.6E+6 (DD)	NA
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	(O)	(O)	NA
1,2,4,5-Tetrachlorobenzene	95943	NA	1.5E+6	3,400 (X)	1.5E+6	ID	ID	ID	ID	ID	7.7E+7	NA
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	71 (O)	0.09 (O)	NA
1,1,1,2-Tetrachloroethane	630206	NA	1,500	ID (X)	4.4E+5 (C)	6,200	36,000	54,000	1.0E+5	4.2E+8	4.4E+5 (C)	4.4E+5
1,1,2,2-Tetrachloroethane	79345	NA	170	1,600 (X)	94,000	4,300	10,000	10,000	14,000	5.4E+7	53,000	8.7E+5
Tetrachloroethylene	127184	NA	100	900 (X)	88,000 (C)	11,000	1.8E+5	4.8E+5	1.1E+6	5.4E+9	88,000 (C)	88,000
Tetrahydrofuran	109999	NA	1,900	2.2E+5 (X)	3.2E+7	1.3E+6	1.3E+7	6.7E+7	1.6E+8	3.9E+11	2.9E+6	1.2E+8
Tetranitromethane	509148	NA	ID	ID	ID	500 (M); 110	500 (M); 51	ID	ID	2.1E+5	ID	ID
Thallium (B)	7440280	NA	2,300	4,200 (X)	1.5E+7	NLV	NLV	NLV	NLV	ID	35,000	NA
Toluene (I)	108883	NA	16,000	2,800	2.5E+5 (C)	2.5E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	2.5E+5 (C)	2.5E+5
p-Toluidine	106490	NA	660 (M); 300	NA	4.8E+5	NLV	NLV	NLV	NLV	1.0E+8	94,000	1.2E+6
Toxaphene	8001352	NA	24,000	860	3.6E+5	NLV	NLV	NLV	NLV	9.7E+6	20,000	NA
Triallate	2303175	NA	95,000	NA	2.5E+5 (C)	ID	ID	ID	ID	ID	2.5E+5 (C)	2.5E+5
Tributylamine	102829	NA	7,800	ID	1.8E+6	5.8E+5	6.0E+5	6.0E+5	6.0E+5	4.7E+8	7.9E+5	3.7E+6

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PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
1,2,4-Trichlorobenzene	120821	NA	4,200	1,800	1.1E+6	1.1E+6 (C)	2.8E+7	2.8E+7	2.8E+7	2.5E+10	9.9E+5 (DD)	1.1E+6
1,1,1-Trichloroethane	71556	NA	4,000	4,000	4.6E+5 (C)	2.5E+5	3.8E+6	1.2E+7	2.8E+7	6.7E+10	4.6E+5 (C)	4.6E+5
1,1,2-Trichloroethane	79005	NA	100	6,600 (X)	4.2E+5	4,600	17,000	21,000	44,000	1.9E+8	1.8E+5	9.2E+5
Trichloroethylene	79016	NA	100	4,000 (X)	4.4E+5	7,100	78,000	1.7E+5	3.9E+5	1.8E+9	5.0E+5 (C,DD)	5.0E+5
Trichlorofluoromethane	75694	NA	52,000	NA	5.6E+5 (C)	5.6E+5 (C)	9.2E+7	6.3E+8	1.5E+9	3.8E+12	5.6E+5 (C)	5.6E+5
2,4,5-Trichlorophenol	95954	NA	39,000	NA	9.1E+6	NLV	NLV	NLV	NLV	2.3E+10	2.3E+7	NA
2,4,6-Trichlorophenol	88062	NA	2,400	NA	2.0E+5	NLV	NLV	NLV	NLV	1.0E+9	7.1E+5	NA
1,2,3-Trichloropropane	96184	NA	840	NA	8.3E+5 (C)	ID	ID	ID	ID	ID	8.3E+5 (C)	8.3E+5
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	NA	5.5E+5 (C)	1,700	5.5E+5 (C)	5.5E+5 (C)	1.8E+8	8.8E+8	2.1E+9	5.1E+12	5.5E+5 (C)	5.5E+5
Triethanolamine	102716	NA	74,000	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	3.3E+9	1.1E+8	1.1E+8
Triethylene glycol	112276	NA	1.1E+5 (C)	NA	1.1E+5 (C)	NLV	NLV	NLV	NLV	ID	1.1E+5 (C,DD)	1.1E+5
3-Trifluoromethyl-4-nitrophenol	88302	NA	1.1E+5	NA	1.2E+8	NLV	NLV	NLV	NLV	ID	4.1E+7 (DD)	NA
Trifluralin	1582098	NA	1.9E+5	NA	1.2E+7	ID	ID	ID	ID	ID	2.0E+6	NA
2,2,4-Trimethyl pentane	540841	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	19,000
2,4,4-Trimethyl-2-pentene (I)	107404	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	56,000
1,2,4-Trimethylbenzene (I)	95636	NA	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.1E+7	5.0E+8	5.0E+8	8.2E+10	1.1E+5 (C)	1.1E+5
1,3,5-Trimethylbenzene (I)	108678	NA	1,800	1,100	94,000 (C)	94,000 (C)	1.6E+7	3.8E+8	3.8E+8	8.2E+10	94,000 (C)	94,000
Triphenyl phosphate	115866	NA	1.1E+5 (C)	NA	1.1E+5 (C)	NLV	NLV	NLV	NLV	ID	1.1E+5 (C)	1.1E+5
tris(2,3-Dibromopropyl)phosphate	126727	NA	930	NA	27,000 (C)	27,000 (C)	18,000	18,000	18,000	5.9E+6	4,400	27,000
Urea	57136	NA	ID (N)	NA	ID	NLV	NLV	NLV	NLV	ID	ID	NA
Vanadium	7440622	NA	72,000	1.9E+5	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	7.5E+5 (DD)	NA
Vinyl acetate (I)	108054	NA	13,000	NA	2.4E+6 (C)	7.9E+5	1.7E+6	2.6E+6	5.8E+6	1.3E+10	2.4E+6 (C,DD)	2.4E+6
Vinyl chloride	75014	NA	40	300	20,000	270	4,200	30,000	73,000	3.5E+8	3,800	4.9E+5
White phosphorus (R)	12185103	NA	2.2	NA	58,000	NLV	NLV	NLV	NLV	ID	2,300 (DD)	NA

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			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact	
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Direct Contact Criteria & RBSLs**	**Soil Saturation Concentration Screening Levels**
Xylenes (I)	1330207	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	6.1E+7	1.3E+8	2.9E+11	1.5E+5 (C)	1.5E+5
Zinc (B)	7440666	47,000	2.4E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

All criteria, unless otherwise noted, are expressed in units of parts per billion (ppb). One ppb is equivalent to one microgram per kilogram (ug/kg). Criteria with six or more digits are expressed in scientific notation. For example, 200,000 ppb is presented as 2.0E+5. A footnote is designated by a letter in parentheses and is explained in the footnote pages that follow the criteria tables. When the risk-based criterion is less than the target detection limit (TDL), the TDL is listed as the criterion (R 299.5707). In these cases, two numbers are presented in the cell. The first number is the criterion (i.e., TDL), and the second number is the risk-based value. Criteria were promulgated December 21, 2002 within the Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. These tables reflect modifications to the TDLs and new criteria consistent with the provisions of R299.5103(l) and R299.5706a, respectively.

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Acenaphthene	83329	NA	3.0E+5	8.8E+5	4,400	9.7E+5	3.5E+8	9.7E+7	9.7E+7	9.7E+7	6.2E+9	1.3E+8	1.8E+8	1.5E+8	NA
Acenaphthylene	208968	NA	5,900	17,000	ID	4.4E+5	3.0E+6	2.7E+6	2.7E+6	2.7E+6	1.0E+9	5.2E+6	7.2E+6	6.1E+6	NA
Acetaldehyde (I)	75070	NA	19,000	54,000	2,600	1.1E+8 (C)	4.0E+5	2.1E+5	2.1E+5	2.9E+5	2.6E+8	9.5E+7	1.1E+8 (C)	1.1E+8	1.1E+8
Acetate	71501	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Acetic acid	64197	NA	84,000	2.4E+5	3.6E+5	6.5E+8 (C)	NLV	NLV	NLV	NLV	7.4E+9	4.2E+8	5.8E+8	4.9E+8	6.5E+8
Acetone (I)	67641	NA	15,000	42,000	34,000	1.1E+8 (C)	1.1E+8 (C)	1.6E+8	1.6E+8	2.0E+8	1.7E+11	7.3E+7	1.0E+8	8.6E+7	1.1E+8
Acetonitrile	75058	NA	2,800	8,000	NA	2.2E+7 (C)	8.8E+6	1.9E+6	1.9E+6	2.2E+6	1.8E+9	1.4E+7	1.9E+7	1.6E+7	2.2E+7
Acetophenone	98862	NA	30,000	88,000	NA	1.1E+6 (C)	1.1E+6 (C)	5.2E+7	5.2E+7	5.2E+7	1.4E+10	1.1E+6 (C)	1.1E+6 (C)	1.1E+6 (C)	1.1E+6
Acrolein (I)	107028	NA	2,400	6,600	NA	2.3E+7 (C)	760	370	370	630	5.9E+5	1.2E+7	1.6E+7	1.4E+7	2.3E+7
Acrylamide	79061	NA	10	10	NA	2.6E+5	NLV	NLV	NLV	NLV	3.0E+6	8,700	12,000	10,000	NA
Acrylic acid	79107	NA	78,000	2.2E+5	NA	1.1E+8 (C)	5.5E+6	2.2E+5	2.7E+5	2.7E+5	2.9E+7	1.1E+8 (C,DD)	1.1E+8 (C,DD)	1.1E+8 (C,DD)	1.1E+8
Acrylonitrile (I)	107131	NA	100 (M); 52	220	100 (M,X); 98	2.8E+5	35,000	17,000	17,000	31,000	5.8E+7	74,000	1.0E+5	87,000	8.3E+6
Alachlor	15972608	NA	52	52	290 (X)	44,000	NLV	NLV	NLV	NLV	ID	3.9E+5	6.9E+5	5.1E+5	NA
Aldicarb	116063	NA	60	60	NA	2.4E+6	NLV	NLV	NLV	NLV	ID	7.3E+5	1.0E+6	8.6E+5	NA
Aldicarb sulfoxide	1646873	NA	200 (M)	200 (M)	NA	5.4E+7	NLV	NLV	NLV	NLV	ID	9.5E+5	1.3E+6	1.1E+6	NA
Aldicarb sulfone	1646884	NA	200 (M); 40	200 (M); 40	NA	4.2E+7	NLV	NLV	NLV	NLV	ID	8.0E+5	1.1E+6	9.4E+5	NA
Aldrin	309002	NA	NLL	NLL	NLL	NLL	7.1E+6	2.0E+5	2.0E+5	2.0E+5	8.0E+5	4,300	7,700	5,600	NA
Aluminum (B)	7429905	6.9E+6	1,000	1,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	3.7E+8 (DD)	4.1E+8 (DD)	3.9E+8 (DD)	NA
Ammonia	7664417	NA	ID	ID	(CC)	ID	ID	ID	ID	ID	2.9E+9	ID	ID	ID	1.0E+7

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
t-Amyl methyl ether (TAME)	994058	NA	3,900	3,900	NA	4.4E+5 (C)	1.1E+5	4.0E+5	7.8E+5	1.8E+6	1.8E+9	4.4E+5 (C)	4.4E+5 (C)	4.4E+5 (C)	4.4E+5
Aniline	62533	NA	1,100	4,400	330 (M); 80	2.8E+6	NLV	NLV	NLV	NLV	2.9E+7	1.5E+6	2.1E+6	1.8E+6	4.5E+6
Anthracene	120127	NA	41,000	41,000	ID	41,000	1.0E+9 (D)	1.6E+9	1.6E+9	1.6E+9	2.9E+10	7.3E+8	1.0E+9	8.6E+8	NA
Antimony	7440360	NA	4,300	4,300	94,000	4.9E+7	NLV	NLV	NLV	NLV	5.9E+6	6.7E+5	7.3E+5	7.0E+5	NA
Arsenic	7440382	5,800	4,600	4,600	70,000 (X)	2.0E+6	NLV	NLV	NLV	NLV	9.1E+5	37,000	46,000	41,000	NA
Asbestos (BB)	1332214	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.0E+7 (M); 85,000	ID	ID	ID	NA
Atrazine	1912249	NA	60	60	150 (X)	1.1E+5	NLV	NLV	NLV	NLV	ID	3.3E+5 (DD)	4.6E+5 (DD)	3.9E+5 (DD)	NA
Azobenzene	103333	NA	4,200	17,000	NA	3.0E+5	3.2E+7	2.1E+6	ID	ID	1.3E+8	6.6E+5	9.2E+5	7.7E+5	NA
Barium (B)	7440393	75,000	1.3E+6	1.3E+6	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.5E+8	1.3E+8	1.5E+8	1.4E+8	NA
Benzene (I)	71432	NA	100	100	4,000 (X)	2.2E+5	8,400	45,000	99,000	2.3E+5	4.7E+8	4.0E+5 (C)	4.0E+5 (C)	4.0E+5 (C)	4.0E+5
Benzidine	92875	NA	1,000 (M); 6.0	1,000 (M); 6.0	ID	1,000 (M); 140	NLV	NLV	NLV	NLV	59,000	1,000 (M); 110	1,000 (M); 150	1,000 (M); 120	NA
Benzo(a)anthracene (Q)	56553	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	1.6E+5	1.1E+5	NA
Benzo(b)fluoranthene (Q)	205992	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	80,000	1.6E+5	1.1E+5	NA
Benzo(k)fluoranthene (Q)	207089	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8.0E+5	1.6E+6	1.1E+6	NA
Benzo(g,h,i)perylene	191242	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	3.5E+8	7.0E+6	1.4E+7	9.5E+6	NA
Benzo(a)pyrene (Q)	50328	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.9E+6	8,000	16,000	11,000	NA
Benzoic acid	65850	NA	6.4E+5	1.8E+6	NA	7.0E+7	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Benzyl alcohol	100516	NA	2.0E+5	5.8E+5	NA	5.8E+6 (C)	NLV	NLV	NLV	NLV	1.5E+11	5.8E+6 (C)	5.8E+6 (C)	5.8E+6 (C)	5.8E+6
Benzyl chloride	100447	NA	150	640	NA	72,000	33,000	48,000	48,000	52,000	7.8E+7	2.2E+5	2.3E+5 (C)	2.3E+5 (C)	2.3E+5
Beryllium	7440417	NA	51,000	51,000	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	5.9E+5	1.6E+6	1.6E+6	1.6E+6	NA
bis(2-Chloroethoxy)ethane	112265	NA	ID	ID	ID	ID	NLV	NLV	NLV	NLV	ID	ID	ID	ID	2.7E+6
bis(2-Chloroethyl)ether (I)	111444	NA	100	170	300	1.1E+5	44,000	13,000	13,000	13,000	1.2E+7	58,000	81,000	68,000	2.2E+6
bis(2-Ethylhexyl)phthalate	117817	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.9E+8	1.0E+7 (C)	1.0E+7 (C)	1.0E+7 (C)	1.0E+7
Boron (B)	7440428	NA	10,000	10,000	38,000	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	3.5E+8 (DD)	3.9E+8 (DD)	3.7E+8 (DD)	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Bromate	15541454	NA	200	200	800	96,000	NLV	NLV	NLV	NLV	ID	91,000	99,000	95,000	NA
Bromobenzene (I)	108861	NA	550	1,500	NA	3.6E+5	5.8E+5	5.4E+5	5.4E+5	5.4E+5	2.4E+8	7.6E+5 (C)	7.6E+5 (C)	7.6E+5 (C)	7.6E+5
Bromodichloromethane	75274	NA	1,600 (W)	1,600 (W)	ID	2.8E+5	6,400	31,000	31,000	57,000	1.1E+8	4.9E+5	6.8E+5	5.7E+5	1.5E+6
Bromoform	75252	NA	1,600 (W)	1,600 (W)	ID	8.7E+5 (C)	7.7E+5	3.1E+6	3.1E+6	3.1E+6	3.6E+9	8.7E+5 (C)	8.7E+5 (C)	8.7E+5 (C)	8.7E+5
Bromomethane	74839	NA	200	580	700	1.4E+6	1,600	13,000	57,000	1.4E+5	1.5E+8	1.0E+6	1.4E+6	1.2E+6	2.2E+6
n-Butanol (I)	71363	NA	19,000	54,000	NA	8.7E+6 (C)	NLV	NLV	NLV	NLV	1.0E+10	8.7E+6 (C)	8.7E+6 (C)	8.7E+6 (C)	8.7E+6
2-Butanone (MEK) (I)	78933	NA	2.6E+5	7.6E+5	44,000	2.7E+7 (C)	2.7E+7 (C)	3.5E+7	3.5E+7	3.6E+7	2.9E+10	2.7E+7 (C,DD)	2.7E+7 (C,DD)	2.7E+7 (C,DD)	2.7E+7
n-Butyl acetate	123864	NA	11,000	32,000	NA	1.1E+6 (C)	1.1E+6 (C)	1.4E+8	3.1E+8	3.5E+8	2.1E+11	1.1E+6 (C)	1.1E+6 (C)	1.1E+6 (C)	1.1E+6
t-Butyl alcohol	75650	NA	78,000	2.2E+5	NA	1.1E+8 (C)	1.1E+8 (C)	1.2E+8	2.4E+8	2.4E+8	5.6E+10	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
Butyl benzyl phthalate	85687	NA	3.1E+5 (C)	3.1E+5 (C)	26,000 (X)	3.1E+5 (C)	NLV	NLV	NLV	NLV	2.1E+10	3.1E+5 (C)	3.1E+5 (C)	3.1E+5 (C)	3.1E+5
n-Butylbenzene	104518	NA	1,600	4,600	ID	1.2E+5	ID	ID	ID	ID	ID	8.0E+6	1.0E+7 (C)	9.4E+6	1.0E+7
sec-Butylbenzene	135988	NA	1,600	4,600	ID	88,000	ID	ID	ID	ID	ID	8.0E+6	1.0E+7 (C)	9.4E+6	1.0E+7
t-Butylbenzene (I)	98066	NA	1,600	4,600	NA	1.8E+5	ID	ID	ID	ID	ID	8.0E+6	1.0E+7 (C)	9.4E+6	1.0E+7
Cadmium (B)	7440439	1,200	6,000	6,000	(G,X)	2.3E+8	NLV	NLV	NLV	NLV	2.2E+6	2.1E+6	2.1E+6	2.1E+6	NA
Camphene (I)	79925	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA
Caprolactam	105602	NA	1.2E+5	3.4E+5	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	2.9E+8	3.1E+8 (DD)	4.8E+8 (DD)	3.8E+8 (DD)	NA
Carbaryl	63252	NA	14,000	40,000	NA	2.6E+6	ID	ID	ID	ID	ID	7.0E+7	9.8E+7	8.2E+7	NA
Carbazole	86748	NA	9,400	39,000	1,100	8.2E+5	NLV	NLV	NLV	NLV	ID	2.4E+6	3.4E+6	2.9E+6	NA
Carbofuran	1563662	NA	800	800	NA	6.8E+6	NLV	NLV	NLV	NLV	ID	3.6E+6	5.1E+6	4.3E+6	NA
Carbon disulfide (I,R)	75150	NA	16,000	46,000	ID	2.8E+5 (C)	1.4E+5	1.6E+6	8.0E+6	1.9E+7	2.1E+10	2.8E+5 (C,DD)	2.8E+5 (C,DD)	2.8E+5 (C,DD)	2.8E+5
Carbon tetrachloride	56235	NA	100	100	900 (X)	92,000	990	12,000	34,000	79,000	1.7E+8	3.9E+5 (C)	3.9E+5 (C)	3.9E+5 (C)	3.9E+5
Chlordane (J)	57749	NA	NLL	NLL	NLL	NLL	5.9E+7	4.2E+6	4.2E+6	4.2E+6	2.1E+7	1.5E+5	2.0E+5	1.7E+5	NA
Chloride	16887006	NA	5.0E+6	5.0E+6	2.5E+6 (X)	ID	NLV	NLV	NLV	NLV	ID	5.0E+5 (F)	5.0E+5 (F)	5.0E+5 (F)	NA
Chlorobenzene (I)	108907	NA	2,000	2,000	940	2.6E+5 (C)	2.2E+5	9.2E+5	1.1E+6	2.1E+6	2.1E+9	2.6E+5 (C)	2.6E+5 (C)	2.6E+5 (C)	2.6E+5

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
para-Chlorobenzenesulfonic acid	98668	NA	1.5E+05	4.2E+05	NA	NA	ID	ID	ID	ID	ID	7.3E+08	1.0E+09	8.6E+08	ID
1-Chloro-1,1-difluoroethane	75683	NA	3.0E+5	8.8E+05	NA	9.6E+5 (C)	9.6E+5 (C)	9.4E+7	5.7E+8	1.4E+9	1.5E+12	9.6E+5 (C)	9.6E+5 (C)	9.6E+5 (C)	9.6E+5
Chloroethane	75003	NA	8,600	34,000	ID	9.5E+5 (C)	9.5E+5 (C)	3.6E+7	1.2E+8	2.8E+8	2.9E+11	9.5E+5 (C)	9.5E+5 (C)	9.5E+5 (C)	9.5E+5
2-Chloroethyl vinyl ether	110758	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	1.9E+6
Chloroform	67663	NA	1,600 (W)	1,600 (W)	3,400 (X)	1.5E+6 (C)	38,000	1.5E+5	3.4E+5	7.9E+5	1.6E+9	1.5E+6 (C)	1.5E+6 (C)	1.5E+6 (C)	1.5E+6
Chloromethane (I)	74873	NA	5,200	22,000	ID	1.1E+6 (C)	10,000	1.2E+5	1.0E+6	2.5E+6	2.6E+9	1.1E+6 (C)	1.1E+6 (C)	1.1E+6 (C)	1.1E+6
4-Chloro-3-methylphenol	59507	NA	5,800	16,000	280	3.0E+6	NLV	NLV	NLV	NLV	ID	1.5E+7	2.0E+7	1.7E+7	NA
beta-Chloronaphthalene	91587	NA	6.2E+5	1.8E+6	NA	2.3E+6	ID	ID	ID	ID	ID	1.8E+8	2.6E+8	2.1E+8	NA
2-Chlorophenol	95578	NA	900	2,600	440	1.9E+6	ID	ID	ID	ID	ID	4.5E+6	6.3E+6	5.3E+6	1.9E+7
o-Chlorotoluene (I)	95498	NA	3,300	9,300	NA	5.0E+5 (C)	5.0E+5 (C)	1.5E+6	3.1E+6	6.4E+6	2.1E+9	5.0E+5 (C)	5.0E+5 (C)	5.0E+5 (C)	5.0E+5
Chlorpyrifos	2921882	NA	17,000	48,000	1,500	8.4E+5	240	5,500	23,000	56,000	5.9E+7	3.4E+7	6.0E+7	4.4E+7	NA
Chromium (III) (B,H)	16065831	18,000 (total)	1.0E+9 (D)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.5E+8	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Chromium (VI)	18540299	NA	30,000	30,000	3,300	1.4E+8	NLV	NLV	NLV	NLV	2.4E+5	9.2E+6	1.0E+7	9.6E+6	NA
Chrysene (Q)	218019	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	8.0E+6	1.6E+7	1.1E+7	NA
Cobalt	7440484	6,800	800	2,000	2,000	4.8E+7	NLV	NLV	NLV	NLV	5.9E+6	9.0E+6	1.0E+7	1.0E+7	NA
Copper (B)	7440508	32,000	5.8E+6	5.8E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	5.9E+7	7.3E+7	7.9E+7	7.6E+7	NA
Cyanazine	21725462	NA	200	200	1,100 (X)	56,000	NLV	NLV	NLV	NLV	ID	66,000	92,000	77,000	NA
Cyanide (P,R)	57125	390 (total)	4,000	4,000	100	2.5E+5	NLV	NLV	NLV	NLV	2.5E+5	2.5E+5	2.5E+5	2.5E+5	NA
Cyclohexanone	108941	NA	5.2E+6	1.5E+7	NA	2.2E+8 (C)	32,000	1.3E+6	1.1E+7	2.7E+7	2.9E+10	2.2E+8 (C)	2.2E+8 (C)	2.2E+8 (C)	2.2E+8
Dacthal	1861321	NA	50,000	1.4E+5	NA	3.4E+5	NLV	NLV	NLV	NLV	ID	7.3E+6	1.0E+7	8.6E+6	NA
Dalapon	75990	NA	4,000	4,000	NA	5.9E+7 (C)	NLV	NLV	NLV	NLV	ID	5.9E+7 (C)	5.9E+7 (C)	5.9E+7 (C)	5.9E+7
4-4'-DDD	72548	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	5.6E+7	4.0E+5	7.1E+5	5.2E+5	NA
4-4'-DDE	72559	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	4.0E+7	1.9E+5	3.3E+5	2.4E+5	NA
4-4'-DDT	50293	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	4.0E+7	2.8E+5	3.4E+5	3.1E+5	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Decabromodiphenyl ether	1163195	NA	1.4E+5	1.4E+5	NA	1.4E+5	1.0E+9 (D)	1.0E+8	1.0E+8	1.0E+8	1.0E+9	1.1E+7	2.0E+7	1.5E+7	NA
Di-n-butyl phthalate	84742	NA	7.6E+5 (C)	7.6E+5 (C)	11,000	7.6E+5 (C)	NLV	NLV	NLV	NLV	1.5E+9	7.6E+5 (C)	7.6E+5 (C)	7.6E+5 (C)	7.6E+5
Di(2-ethylhexyl) adipate	103231	NA	9.6E+5 (C)	9.6E+5 (C)	NA	9.6E+5 (C)	NLV	NLV	NLV	NLV	1.2E+10	9.6E+5 (C,DD)	9.6E+5 (C,DD)	9.6E+5 (C,DD)	9.6E+5
Di-n-octyl phthalate	117840	NA	1.0E+8	1.4E+8 (C)	ID	1.4E+8 (C)	NLV	NLV	NLV	NLV	ID	2.0E+7	3.6E+7	2.6E+7	1.4E+8
Diacetone alcohol (I)	123422	NA	ID	ID	NA	ID	NLV	NLV	NLV	NLV	7.1E+10	ID	ID	ID	1.1E+8
Diazinon	333415	NA	95	280	NA	95,000	NLV	NLV	NLV	NLV	ID	70,000 (DD)	1.1E+5 (DD)	86,000 (DD)	3.1E+5
Dibenzo(a,h)anthracene (Q)	53703	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8,000	16,000	11,000	NA
Dibenzofuran	132649	NA	ID	ID	1,700	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA
Dibromochloromethane	124481	NA	1,600 (W)	1,600 (W)	ID	3.6E+5	21,000	80,000	80,000	98,000	1.6E+8	5.0E+5	6.1E+5 (C)	5.8E+5	6.1E+5
Dibromochloropropane	96128	NA	10 (M); 4.0	10 (M); 4.0	NA	1,200 (C)	1,200 (C)	15,000	15,000	15,000	5.9E+6	1,200 (C)	1,200 (C)	1,200 (C)	1,200
Dibromomethane	74953	NA	1,600	4,600	NA	2.0E+6 (C)	ID	ID	ID	ID	ID	2.0E+6 (C)	2.0E+6 (C)	2.0E+6 (C)	2.0E+6
Dicamba	1918009	NA	4,400	13,000	NA	1.2E+7	NLV	NLV	NLV	NLV	ID	1.7E+7	3.5E+7	2.3E+7	NA
1,2-Dichlorobenzene	95501	NA	14,000	14,000	360	2.1E+5 (C)	2.1E+5 (C)	4.6E+7	4.6E+7	5.5E+7	4.4E+10	2.1E+5 (C)	2.1E+5 (C)	2.1E+5 (C)	2.1E+5
1,3-Dichlorobenzene	541731	NA	170	480	1,100	51,000	ID	ID	ID	ID	ID	1.7E+5 (C)	1.7E+5 (C)	1.7E+5 (C)	1.7E+5
1,4-Dichlorobenzene	106467	NA	1,700	1,700	290	1.4E+5	1.0E+5	2.6E+5	2.6E+5	3.4E+5	5.7E+8	1.9E+6	2.6E+6	2.2E+6	NA
3,3'-Dichlorobenzidine	91941	NA	2,000 (M); 28	2,000 (M); 110	2,000 (M,X); 510	4,600	NLV	NLV	NLV	NLV	8.2E+6	30,000	43,000	36,000	NA
Dichlorodifluoromethane	75718	NA	95,000	2.7E+5	ID	1.0E+6 (C)	1.7E+6	6.3E+7	5.5E+8	1.4E+9	1.5E+12	1.0E+6 (C)	1.0E+6 (C)	1.0E+6 (C)	1.0E+6
1,1-Dichloroethane	75343	NA	18,000	50,000	15,000	8.9E+5 (C)	4.3E+5	2.5E+6	6.0E+6	1.4E+7	1.5E+10	8.9E+5 (C)	8.9E+5 (C)	8.9E+5 (C)	8.9E+5
1,2-Dichloroethane (I)	107062	NA	100	100	7,200 (X)	3.8E+5	11,000	21,000	33,000	74,000	1.5E+8	4.2E+5	5.9E+5	4.9E+5	1.2E+6
1,1-Dichloroethylene (I)	75354	NA	140	140	1,300 (X)	2.2E+5	330	3,700	15,000	37,000	7.8E+7	5.7E+5 (C)	5.7E+5 (C)	5.7E+5 (C)	5.7E+5
cis-1,2-Dichloroethylene	156592	NA	1,400	1,400	12,000	6.4E+5 (C)	41,000	2.1E+5	4.3E+5	1.0E+6	1.0E+9	6.4E+5 (C)	6.4E+5 (C)	6.4E+5 (C)	6.4E+5
trans-1,2-Dichloroethylene	156605	NA	2,000	2,000	30,000	1.4E+6 (C)	43,000	3.3E+5	8.4E+5	2.0E+6	2.1E+9	1.4E+6 (C)	1.4E+6 (C)	1.4E+6 (C)	1.4E+6
2,6-Dichloro-4-nitroaniline	99309	NA	44,000	1.3E+5	NA	1.4E+5	NLV	NLV	NLV	NLV	ID	2.2E+8	3.1E+8	2.6E+8	NA
2,4-Dichlorophenol	120832	NA	1,500	4,200	380	9.6E+5	NLV	NLV	NLV	NLV	2.3E+9	1.8E+6 (C,DD)	1.8E+6 (C,DD)	1.8E+6 (C,DD)	1.8E+6

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
2,4-Dichlorophenoxyacetic acid	94757	NA	1,400	1,400	4,400	2.4E+6	NLV	NLV	NLV	NLV	2.9E+9	8.6E+6	1.0E+7	9.4E+6	NA
1,2-Dichloropropane (I)	78875	NA	100	100	5,800 (X)	3.2E+5	7,400	30,000	51,000	1.2E+5	1.2E+8	5.5E+5 (C)	5.5E+5 (C)	5.5E+5 (C)	5.5E+5
1,3-Dichloropropene	542756	NA	170	700	NA	1.1E+5	5,400	60,000	2.0E+5	4.7E+5	5.9E+8	2.4E+5	3.4E+5	2.9E+5	6.2E+5
Dichlorovos	62737	NA	50 (M); 32	130	NA	1.2E+5	NLV	NLV	NLV	NLV	1.5E+7	47,000	65,000	55,000	2.2E+6
Dicyclohexyl phthalate	84617	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA
Dieldrin	60571	NA	NLL	NLL	NLL	NLL	7.2E+5	64,000	64,000	64,000	8.5E+5	4,700	8,300	6,100	NA
Diethyl ether	60297	NA	200	200	ID	7.4E+6 (C)	7.4E+6 (C)	1.0E+8	1.6E+8	3.5E+8	3.5E+11	7.4E+6 (C)	7.4E+6 (C)	7.4E+6 (C)	7.4E+6
Diethyl phthalate	84662	NA	1.1E+5	3.2E+5	2,200	7.4E+5 (C)	NLV	NLV	NLV	NLV	1.5E+9	7.4E+5 (C)	7.4E+5 (C)	7.4E+5 (C)	7.4E+5
Diethylene glycol monobutyl ether	112345	NA	1,800	5,000	NA	8.0E+7	NLV	NLV	NLV	NLV	5.9E+8	8.7E+6	1.2E+7	1.0E+7	1.1E+8
Diisopropyl ether	108203	NA	600	1,300 (C)	ID	1,300 (C)	1,300 (C)	3.2E+6	4.8E+6	1.0E+7	1.1E+10	1,300 (C)	1,300 (C)	1,300 (C)	1,300
Diisopropylamine (I)	108189	NA	110	320	NA	4.2E+5	ID	ID	ID	ID	ID	5.6E+5	7.9E+5	6.6E+5	6.7E+6
Dimethyl phthalate	131113	NA	7.9E+5 (C)	7.9E+5 (C)	NA	7.9E+5 (C)	NLV	NLV	NLV	NLV	1.5E+9	7.9E+5 (C)	7.9E+5 (C)	7.9E+5 (C)	7.9E+5
N,N-Dimethylacetamide	127195	NA	3,600	10,000	82,000 (X)	1.1E+8 (C)	NLV	NLV	NLV	NLV	ID	1.8E+7	2.6E+7	2.1E+7	1.1E+8
N,N-Dimethylaniline	121697	NA	320	920	NA	4.0E+5	8.0E+5 (C)	5.2E+5	5.2E+5	5.2E+5	3.3E+8	8.0E+5 (C)	8.0E+5 (C)	8.0E+5 (C)	8.0E+5
Dimethylformamide (I)	68122	NA	14,000	40,000	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	8.8E+8	7.0E+7	9.8E+7	8.2E+7	1.1E+8
2,4-Dimethylphenol	105679	NA	7,400	20,000	7,600	1.0E+7	NLV	NLV	NLV	NLV	2.1E+9	3.6E+7	5.1E+7	4.3E+7	NA
2,6-Dimethylphenol	576261	NA	330 (M); 88	330 (M); 260	NA	1.3E+5	NLV	NLV	NLV	NLV	ID	4.4E+5	6.1E+5	5.1E+5	NA
3,4-Dimethylphenol	95658	NA	330 (M); 200	580	NA	3.6E+5	NLV	NLV	NLV	NLV	ID	1.0E+6	1.4E+6	1.2E+6	NA
Dimethylsulfoxide	67685	NA	4.4E+6	1.3E+7	3.8E+6	1.8E+7 (C)	NLV	NLV	NLV	NLV	ID	1.8E+7 (C)	1.8E+7 (C)	1.8E+7 (C)	1.8E+7
2,4-Dinitrotoluene	121142	NA	430	640	NA	1.7E+5	NLV	NLV	NLV	NLV	2.0E+7	2.2E+5	3.1E+5	2.6E+5	NA
Dinoseb	88857	NA	300	300	200 (M); 43	1.4E+5 (C)	NLV	NLV	NLV	NLV	ID	1.4E+5 (C,DD)	1.4E+5 (C,DD)	1.4E+5 (C,DD)	1.4E+5
1,4-Dioxane (I)	123911	NA	1,700	7,000	56,000	3.4E+7	NLV	NLV	NLV	NLV	7.1E+8	2.4E+6	3.4E+6	2.9E+6	9.7E+7
Diquat	85007	NA	400	400	NA	1.4E+7	NLV	NLV	NLV	NLV	ID	1.6E+6	2.2E+6	1.9E+6	NA
Diuron	330541	NA	620	1,800	NA	7.4E+5	NLV	NLV	NLV	NLV	2.1E+8	3.1E+6	4.4E+6	3.7E+6	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Endosulfan (J)	115297	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	4.4E+6	6.1E+6	5.1E+6	NA
Endothall	145733	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.0E+9	1.2E+7	1.7E+7	1.5E+7	NA
Endrin	72208	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	1.9E+5	3.4E+5	2.5E+5	NA
Epichlorohydrin (I)	106898	NA	100	100	NA	2.2E+5	1.2E+5	37,000	37,000	37,000	2.9E+7	41,000	58,000	48,000	7.3E+6
Ethanol (I)	64175	NA	3.8E+7	7.6E+7	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	5.6E+11	1.1E+8 (C,DD)	1.1E+8 (C,DD)	1.1E+8 (C,DD)	1.1E+8
Ethyl acetate (I)	141786	NA	1.3E+5	3.8E+5	NA	7.5E+6 (C)	7.5E+6 (C)	5.9E+7	5.9E+7	1.0E+8	9.4E+10	7.5E+6 (C)	7.5E+6 (C)	7.5E+6 (C)	7.5E+6
Ethyl-tert-butyl ether (ETBE)	637923	NA	980	980	ID	ID	6.5E+5 (C)	2.3E+6	4.6E+6	1.1E+7	1.1E+10	ID	ID	ID	6.5E+5
Ethylbenzene (I)	100414	NA	1,500	1,500	360	1.4E+5 (C)	1.4E+5 (C)	2.4E+6	3.1E+6	6.5E+6	1.3E+10	1.4E+5 (C)	1.4E+5 (C)	1.4E+5 (C)	1.4E+5
Ethylene dibromide	106934	NA	20 (M); 1.0	20 (M); 1.0	20 (M); 4.0	500	3,600	5,800	5,800	9,800	1.8E+7	430	600	500	8.9E+5
Ethylene glycol	107211	NA	3.0E+5	8.4E+5	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	2.9E+10	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
Ethylene glycol monobutyl ether	111762	NA	74,000	2.0E+5	NA	4.1E+7 (C)	1.4E+6	2.1E+7	1.5E+8	3.6E+8	3.8E+11	4.1E+7 (C)	4.1E+7 (C)	4.1E+7 (C)	4.1E+7
Fluoranthene	206440	NA	7.3E+5	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	8.9E+8	8.8E+8	8.8E+8	4.1E+9	1.3E+8	2.4E+8	1.7E+8	NA
Fluorene	86737	NA	3.9E+5	8.9E+5	5,300	8.9E+5	1.0E+9 (D)	1.5E+8	1.5E+8	1.5E+8	4.1E+9	8.7E+7	1.2E+8	1.0E+8	NA
Fluorine (soluble fluoride) (B)	7782414	NA	40,000	40,000	NA	2.4E+8	NLV	NLV	NLV	NLV	ID	6.7E+7 (DD)	7.4E+7 (DD)	7.0E+7 (DD)	NA
Formaldehyde	50000	NA	26,000	76,000	2,400	6.0E+7 (C)	65,000	43,000	69,000	1.5E+5	3.0E+8	6.0E+7 (C)	6.0E+7 (C)	6.0E+7 (C)	6.0E+7
Formic acid (I,U)	64186	NA	2.0E+5	5.8E+5	ID	1.1E+8 (C)	2.8E+6	2.6E+5	1.6E+5	1.6E+5	5.9E+7	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
1-Formylpiperidine	2591868	NA	1,600	4,600	NA	ID	ID	ID	ID	ID	ID	8.0E+6	1.0E+7 (C)	9.4E+6	1.0E+7
Gentian violet	548629	NA	300	1,300	NA	2.0E+7	NLV	NLV	NLV	NLV	ID	4.4E+5	6.2E+5	5.2E+5	NA
Glyphosate	1071836	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	5.7E+7 (DD)	1.2E+8 (DD)	7.8E+7 (DD)	NA
Heptachlor	76448	NA	NLL	NLL	NLL	NLL	1.9E+6	2.1E+5	2.1E+5	2.1E+5	3.0E+6	23,000	42,000	30,000	NA
Heptachlor epoxide	1024573	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	9,500	17,000	12,000	NA
n-Heptane	142825	NA	2.4E+5 (C)	2.4E+5 (C)	NA	2.4E+5 (C)	2.4E+5 (C)	2.5E+7	4.5E+7	1.0E+8	1.0E+11	2.4E+5 (C)	2.4E+5 (C)	2.4E+5 (C)	2.4E+5
Hexabromobenzene	87821	NA	5,400	5,400	ID	5,400	ID	ID	ID	ID	ID	3.1E+6	5.6E+6	4.1E+6	NA
Hexachlorobenzene (C-66)	118741	NA	1,800	1,800	350	8,200	2.2E+5	56,000	56,000	56,000	8.5E+6	37,000	67,000	49,000	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Hexachlorobutadiene (C-46)	87683	NA	26,000	72,000	91	3.5E+5 (C)	3.5E+5 (C)	4.6E+5	4.6E+5	4.6E+5	1.8E+8	3.5E+5 (C)	3.5E+5 (C)	3.5E+5 (C)	3.5E+5
alpha-Hexachlorocyclohexane	319846	NA	18	71	NA	2,500	1.6E+5	41,000	86,000	86,000	2.1E+6	12,000	17,000	14,000	NA
beta-Hexachlorocyclohexane	319857	NA	37	150	NA	5,100	NLV	NLV	NLV	NLV	7.4E+6	25,000	35,000	29,000	NA
Hexachlorocyclopentadiene (C-56)	77474	NA	3.2E+5	3.2E+5	ID	7.2E+5 (C)	56,000	60,000	60,000	60,000	5.9E+6	7.2E+5 (C)	7.2E+5 (C)	7.2E+5 (C)	7.2E+5
Hexachloroethane	67721	NA	430	1,200	1,800 (X)	1.1E+5	79,000	6.6E+5	1.4E+6	1.4E+6	1.0E+8	7.3E+5	1.0E+6	8.6E+5	NA
n-Hexane	110543	NA	44,000 (C)	44,000 (C)	NA	44,000 (C)	44,000 (C)	3.5E+6	3.5E+6	6.4E+6	5.9E+9	44,000 (C)	44,000 (C)	44,000 (C)	44,000
2-Hexanone	591786	NA	20,000	58,000	NA	2.5E+6 (C)	1.8E+6	1.3E+6	1.3E+6	1.5E+6	1.2E+9	2.5E+6 (C)	2.5E+6 (C)	2.5E+6 (C)	2.5E+6
Indeno(1,2,3-cd)pyrene (Q)	193395	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	1.6E+5	1.1E+5	NA
Iron (B)	7439896	1.2E+7	6,000	6,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	5.8E+8	6.2E+8	6.0E+8	NA
Isobutyl alcohol (I)	78831	NA	46,000	1.3E+5	NA	8.9E+6 (C)	8.9E+6 (C)	9.5E+7	9.5E+7	9.5E+7	4.4E+10	8.9E+6 (C)	8.9E+6 (C)	8.9E+6 (C)	8.9E+6
Isophorone	78591	NA	15,000	62,000	11,000 (X)	2.4E+6 (C)	NLV	NLV	NLV	NLV	8.2E+9	2.4E+6 (C)	2.4E+6 (C)	2.4E+6 (C)	2.4E+6
Isopropyl alcohol (I)	67630	NA	9,400	26,000	1.1E+6 (X)	1.1E+8 (C)	NLV	NLV	NLV	NLV	6.5E+9	4.7E+7	6.5E+7	5.5E+7	1.1E+8
Isopropyl benzene	98828	NA	91,000	2.6E+5	ID	3.9E+5 (C)	3.9E+5 (C)	2.0E+6	2.0E+6	3.0E+6	2.6E+9	3.9E+5 (C)	3.9E+5 (C)	3.9E+5 (C)	3.9E+5
Lead (B)	7439921	21,000	7.0E+5	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	4.4E+7	9.0E+5 (DD)	4.0E+5	4.0E+5	NA
Lindane	58899	NA	20 (M); 7.0	20 (M); 7.0	20 (M); 0.99	7,100	ID	ID	ID	ID	ID	42,000	49,000	45,000	NA
Lithium (B)	7439932	9,800	3,400	7,000	1,900	1.1E+8	NLV	NLV	NLV	NLV	ID	3.1E+7 (DD)	3.5E+7 (DD)	3.3E+7 (DD)	NA
Magnesium (B)	7439954	NA	8.0E+6	2.2E+7	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	2.9E+9	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Manganese (B)	7439965	4.4E+5	1,000	1,000	(G,X)	1.8E+8	NLV	NLV	NLV	NLV	1.5E+6	9.0E+7	9.8E+7	9.4E+7	NA
Mercury (Total) (B,Z)	Varies	130	1,700	1,700	50 (M); 1.2	47,000	89,000	62,000	62,000	62,000	8.8E+6	5.8E+5	6.2E+5	6.0E+5	NA
Methane	74828	NA	ID	ID	NA	ID	8.4E+6 ug/m3 (GG)	ID	ID	ID	ID	ID	ID	ID	ID
Methanol	67561	NA	74,000	2.0E+5	9,600	3.1E+6 (C)	3.1E+6 (C)	3.7E+7	4.6E+7	9.7E+7	9.6E+10	3.1E+6 (C)	3.1E+6 (C)	3.1E+6 (C)	3.1E+6
Methoxychlor	72435	NA	16,000	16,000	NA	18,000	ID	ID	ID	ID	ID	5.6E+6	1.0E+7	7.3E+6	NA
2-Methoxyethanol (I)	109864	NA	150	420	NA	1.7E+7	NLV	NLV	NLV	NLV	5.9E+8	7.3E+5	1.0E+6	8.6E+5	1.1E+8
2-Methyl-4-chlorophenoxyacetic acid	94746	NA	390	1,100	NA	4.9E+5	NLV	NLV	NLV	NLV	ID	7.3E+5	1.0E+6	8.6E+5	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
2-Methyl-4,6-dinitrophenol	534521	NA	830 (M); 400	830 (M); 400	NA	1.9E+5	NLV	NLV	NLV	NLV	ID	2.6E+5	3.6E+5	3.0E+5	NA
N-Methyl-morpholine (I)	109024	NA	400	1,100	NA	3.0E+7	NLV	NLV	NLV	NLV	ID	2.0E+6	2.8E+6	2.3E+6	1.1E+8
Methyl parathion	298000	NA	46	130	NA	76,000	NLV	NLV	NLV	NLV	ID	1.8E+5	2.6E+5	2.1E+5	NA
4-Methyl-2-pentanone (MIBK) (I)	108101	NA	36,000	1.0E+5	ID	2.7E+6 (C)	2.7E+6 (C)	5.3E+7	5.3E+7	7.0E+7	6.0E+10	2.7E+6 (C)	2.7E+6 (C)	2.7E+6 (C)	2.7E+6
Methyl-tert-butyl ether (MTBE)	1634044	NA	800	800	15,000 (X)	5.9E+6 (C)	5.9E+6 (C)	3.0E+7	4.1E+7	8.9E+7	8.8E+10	5.9E+6 (C)	5.9E+6 (C)	5.9E+6 (C)	5.9E+6
Methylcyclopentane (I)	96377	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	3.5E+5
4,4'-Methylene-bis-2-chloroaniline (MBOCA)	101144	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.1E+8	32,000	44,000	37,000	NA
Methylene chloride	75092	NA	100	100	19,000 (X)	2.3E+6 (C)	2.4E+5	7.0E+5	1.7E+6	4.0E+6	8.3E+9	2.3E+6 (C)	2.3E+6 (C)	2.3E+6 (C)	2.3E+6
2-Methylnaphthalene	91576	NA	57,000	1.7E+5	ID	5.5E+6	ID	ID	ID	ID	ID	2.6E+7	3.7E+7	3.1E+7	NA
Methylphenols (J)	1319773	NA	7,400	20,000	1,400	1.6E+7	NLV	NLV	NLV	NLV	2.9E+9	3.6E+7	5.1E+7	4.3E+7	NA
Metolachlor	51218452	NA	4,800	20,000	NA	4.4E+5 (C)	NLV	NLV	NLV	NLV	ID	4.4E+5 (C,DD)	4.4E+5 (C,DD)	4.4E+5 (C,DD)	4.4E+5
Metribuzin	21087649	NA	3,600	10,000	NA	2.40E+07	ID	ID	ID	ID	ID	2.8E+7	5.0E+7	3.6E+7	NA
Mirex	2385855	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	40,000	72,000	52,000	NA
Molybdenum (B)	7439987	NA	1,500	4,200	16,000 (X)	1.9E+7	NLV	NLV	NLV	NLV	ID	9.6E+6	1.0E+7	1.0E+7	NA
Naphthalene	91203	NA	35,000	1.0E+5	870	2.1E+6	4.7E+5	3.5E+5	3.5E+5	3.5E+5	8.8E+7	5.2E+7	7.2E+7	6.1E+7	NA
Nickel (B)	7440020	20,000	1.0E+5	1.0E+5	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.6E+7	1.5E+8	1.6E+8	1.5E+8	NA
Nitrate (B,N)	14797558	NA	2.0E+5 (N)	2.0E+5 (N)	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	ID	ID	ID	NA
Nitrite (B,N)	14797650	NA	20,000 (N)	20,000 (N)	NA	3.8E+8	NLV	NLV	NLV	NLV	ID	ID	ID	ID	NA
Nitrobenzene (I)	98953	NA	330 (M); 68	330 (M); 190	3,600 (X)	2.2E+5	1.7E+5	64,000	64,000	64,000	2.1E+7	3.4E+5	4.7E+5	3.9E+5	4.9E+5
2-Nitrophenol	88755	NA	400	1,200	ID	1.6E+6	NLV	NLV	NLV	NLV	ID	2.0E+6	2.9E+6	2.4E+6	NA
n-Nitroso-di-n-propylamine	621647	NA	330 (M); 100	330 (M); 100	NA	7,200	NLV	NLV	NLV	NLV	2.0E+6	5,400	7,600	6,400	1.5E+6
N-Nitrosodiphenylamine	86306	NA	5,400	22,000	NA	7.0E+5	NLV	NLV	NLV	NLV	ID	7.8E+6	1.1E+7	9.2E+6	NA
Oxamyl	23135220	NA	4,000	4,000	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	2.8E+7	3.9E+7	3.3E+7	NA
Oxo-hexyl acetate	88230357	NA	1,500	4,200	NA	ID	ID	ID	ID	ID	2.4E+9	7.3E+6	1.0E+7	8.6E+6	1.0E+7

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Pendimethalin	40487421	NA	1.1E+6	1.1E+6	NA	1.1E+6	NLV	NLV	NLV	NLV	ID	1.3E+8	2.4E+8	1.7E+8	NA
Pentachlorobenzene	608935	NA	29,000	81,000	9,500	1.9E+5 (C)	ID	ID	ID	ID	ID	1.9E+5 (C)	1.9E+5 (C)	1.9E+5 (C)	1.9E+5
Pentachloronitrobenzene	82688	NA	37,000	37,000	NA	37,000	2.2E+5	2.8E+5	2.8E+5	2.8E+5	1.5E+8	5.5E+6	7.7E+6	6.4E+6	NA
Pentachlorophenol	87865	NA	22	22	(G,X)	4,300	NLV	NLV	NLV	NLV	1.3E+8	3.2E+5	9.2E+5	4.9E+5	NA
Pentane	109660	NA	ID	ID	NA	ID	1.8E+5	4.4E+7	3.4E+8	6.0E+08	5.3E+11	ID	ID	ID	2.4E+5
2-Pentene (I)	109682	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	2.2E+5
Phenanthrene	85018	NA	56,000	1.6E+5	5,300	1.1E+6	5.1E+6	1.9E+5	1.9E+5	1.9E+5	2.9E+6	5.2E+6	7.2E+6	6.1E+6	NA
Phenol	108952	NA	88,000	2.6E+5	4,200	1.2E+7 (C)	NLV	NLV	NLV	NLV	1.8E+10	1.2E+7 (C,DD)	1.2E+7 (C,DD)	1.2E+7 (C,DD)	1.2E+7
Phosphorus (Total)	7723140	NA	1.3E+6	4.8E+6	(EE)	ID	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Phthalic acid	88993	NA	2.8E+5	8.0E+5	NA	1.7E+6 (C)	NLV	NLV	NLV	NLV	ID	1.7E+6 (C)	1.7E+6 (C)	1.7E+6 (C)	1.7E+6
Phthalic anhydride	85449	NA	3.0E+5	8.8E+5	NA	1.1E+6 (C)	NLV	NLV	NLV	NLV	ID	1.1E+6 (C)	1.1E+6 (C)	1.1E+6 (C)	1.1E+6
Picloram	1918021	NA	10,000	10,000	920	8.6E+6	NLV	NLV	NLV	NLV	ID	5.1E+7	7.1E+7	6.0E+7	NA
Piperidine	110894	NA	64	180	NA	6.8E+5	NLV	NLV	NLV	NLV	4.1E+9	3.2E+5	4.5E+5	3.8E+5	1.2E+8
Polybrominated biphenyls (J)	67774327	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	4,800	8,600	6,300	NA
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NA	NLL	NLL	NLL	NLL	1.6E+7	8.1E+5	2.8E+7	2.8E+7	6.5E+6	(T)	(T)	(T)	NA
Prometon	1610180	NA	4,900	14,000	NA	5.5E+6	NLV	NLV	NLV	NLV	ID	1.6E+7	2.2E+7	1.9E+7	NA
Propachlor	1918167	NA	1,900	5,400	NA	8.8E+6	NLV	NLV	NLV	NLV	ID	9.5E+6	1.3E+7	1.1E+7	NA
Propazine	139402	NA	4,000	11,000	NA	1.7E+5	NLV	NLV	NLV	NLV	ID	2.0E+7	2.8E+7	2.3E+7	NA
Propionic acid	79094	NA	2.4E+5	7.0E+5	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	8.8E+9	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
Propyl alcohol (I)	71238	NA	28,000	80,000	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	2.1E+10	7.4E+7 (DD)	1.1E+8 (DD)	9.1E+7(DD)	1.1E+8
n-Propylbenzene (I)	103651	NA	1,600	4,600	NA	3.0E+5	ID	ID	ID	ID	5.9E+8	8.0E+6	1.0E+7 (C)	9.4E+6	1.0E+7
Propylene glycol	57556	NA	3.0E+6	8.4E+6	5.8E+6	1.1E+8 (C)	NLV	NLV	NLV	NLV	1.8E+11	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
Pyrene	129000	NA	4.8E+5	4.8E+5	ID	4.8E+5	1.0E+9 (D)	7.8E+8	7.8E+8	7.8E+8	2.9E+9	8.4E+7	1.5E+8	1.1E+8	NA
Pyridine (I)	110861	NA	400	420	NA	37,000 (C)	2,000	9,800	40,000	97,000	1.0E+8	37,000 (C)	37,000 (C)	37,000 (C)	37,000

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Selenium (B)	7782492	410	4,000	4,000	400	7.8E+7	NLV	NLV	NLV	NLV	5.9E+7	9.6E+6	1.0E+7	1.0E+7	NA
Silver (B)	7440224	1,000	4,500	13,000	100 (M); 27	2.0E+8	NLV	NLV	NLV	NLV	2.9E+6	9.0E+6	9.8E+6	9.4E+6	NA
Silvex (2,4,5-TP)	93721	NA	3,600	3,600	2,200	3.1E+6	NLV	NLV	NLV	NLV	ID	5.5E+6	7.7E+6	6.4E+6	NA
Simazine	122349	NA	80	80	NA	90,000	NLV	NLV	NLV	NLV	ID	3.8E+6	5.3E+6	4.5E+6	NA
Sodium	17341252	NA	2.5E+6	7.0E+6	NA	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Sodium azide	26628228	NA	1,800	5,000	NA	ID	ID	ID	ID	ID	ID	8.70E+06	1.20E+07	1.00E+07	NA
Strontium (B)	7440246	NA	92,000	2.6E+5	46,000 (X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	1.0E+9 (D)	1.0E+9 (D)	NA
Styrene	100425	NA	2,700	2,700	2,200	2.7E+5	5.2E+5 (C)	3.3E+6	3.3E+6	4.2E+6	6.9E+9	5.2E+5 (C)	5.2E+5 (C)	5.2E+5 (C)	5.2E+5
Sulfate	14808798	NA	5.0E+6	5.0E+6	NA	ID	NLV	NLV	NLV	NLV	ID	ID	ID	ID	NA
Tebuthiuron	34014181	NA	10,000	30,000	NA	5.0E+7	NLV	NLV	NLV	NLV	ID	2.7E+7 (DD)	4.2E+7 (DD)	3.3E+7 (DD)	NA
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	(O)	(O)	(O)	(O)	NA
1,2,4,5-Tetrachlorobenzene	95943	NA	1.5E+6	1.5E+6	3,400 (X)	1.5E+6	ID	ID	ID	ID	ID	2.5E+8	3.5E+8	2.9E+8	NA
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	89 (O)	0.99 (O)	1.4 (O)	2.9 (O)	NA
1,1,1,2-Tetrachloroethane	630206	NA	1,500	6,400	ID (X)	4.4E+5 (C)	33,000	1.2E+5	2.1E+5	3.3E+5	5.3E+8	4.4E+5 (C)	4.4E+5 (C)	4.4E+5 (C)	4.4E+5
1,1,2,2-Tetrachloroethane	79345	NA	170	700	1,600 (X)	94,000	23,000	34,000	34,000	34,000	6.8E+7	2.4E+5	3.4E+5	2.9E+5	8.7E+5
Tetrachloroethylene	127184	NA	100	100	900 (X)	88,000 (C)	60,000	6.0E+5	1.4E+6	3.3E+6	6.8E+9	88,000 (C)	88,000 (C)	88,000 (C)	88,000
Tetrahydrofuran	109999	NA	1,900	5,400	2.2E+5 (X)	3.2E+7	2.4E+6	1.5E+7	6.7E+7	1.6E+8	1.7E+11	9.5E+6	1.3E+7	1.1E+7	1.2E+8
Tetranitromethane	509148	NA	ID	ID	ID	ID	600	500 (M); 180	ID	ID	2.6E+5	ID	ID	ID	ID
Thallium (B)	7440280	NA	2,300	2,300	4,200 (X)	1.5E+7	NLV	NLV	NLV	NLV	ID	1.3E+5	1.4E+5	1.3E+5	NA
Toluene (I)	108883	NA	16,000	16,000	2,800	2.5E+5 (C)	2.5E+5 (C)	3.3E+6	3.6E+7	3.6E+7	1.2E+10	2.5E+5 (C)	2.5E+5 (C)	2.5E+5 (C)	2.5E+5
p-Toluidine	106490	NA	660 (M); 300	1,200	NA	4.8E+5	NLV	NLV	NLV	NLV	1.3E+8	4.3E+5	6.1E+5	5.1E+5	1.2E+6
Toxaphene	8001352	NA	24,000	24,000	860	3.6E+5	NLV	NLV	NLV	NLV	1.2E+7	85,000	1.5E+5	1.1E+5	NA
Triallate	2303175	NA	95,000	2.5E+5 (C)	NA	2.5E+5 (C)	ID	ID	ID	ID	ID	2.5E+5 (C)	2.5E+5 (C)	2.5E+5 (C)	2.5E+5
Tributylamine	102829	NA	7,800	23,000	ID	1.8E+6	1.1E+6	7.2E+5	7.2E+5	7.2E+5	2.1E+8	2.6E+6	3.6E+6	3.0E+6	3.7E+6

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
1,2,4-Trichlorobenzene	120821	NA	4,200	4,200	1,800	1.1E+6	1.1E+6 (C)	3.4E+7	3.4E+7	3.4E+7	1.1E+10	1.1E+6 (C,DD)	1.1E+6 (C,DD)	1.1E+6 (C,DD)	1.1E+6
1,1,1-Trichloroethane	71556	NA	4,000	4,000	4,000	4.6E+5 (C)	4.6E+5	4.5E+6	1.5E+7	3.1E+7	2.9E+10	4.6E+5 (C)	4.6E+5 (C)	4.6E+5 (C)	4.6E+5
1,1,2-Trichloroethane	79005	NA	100	100	6,600 (X)	4.2E+5	24,000	57,000	57,000	1.2E+5	2.5E+8	8.4E+5	9.2E+5 (C)	9.2E+5 (C)	9.2E+5
Trichloroethylene	79016	NA	100	100	4,000 (X)	4.4E+5	37,000	2.6E+5	4.4E+5	1.1E+6	2.3E+9	5.0E+5 (C,DD)	5.0E+5 (C,DD)	5.0E+5 (C,DD)	5.0E+5
Trichlorofluoromethane	75694	NA	52,000	1.5E+5	NA	5.6E+5 (C)	5.6E+5 (C)	1.1E+8	1.4E+11	1.4E+11	1.7E+12	5.6E+5 (C)	5.6E+5 (C)	5.6E+5 (C)	5.6E+5
2,4,5-Trichlorophenol	95954	NA	39,000	1.1E+5	NA	9.1E+6	NLV	NLV	NLV	NLV	1.0E+10	7.3E+7	1.0E+8	8.6E+7	NA
2,4,6-Trichlorophenol	88062	NA	2,400	9,400	330 (M); 100	2.0E+5	NLV	NLV	NLV	NLV	1.3E+9	3.3E+6	4.6E+6	3.9E+6	NA
1,2,3-Trichloropropane	96184	NA	840	2,400	NA	8.3E+5 (C)	ID	ID	ID	ID	ID	8.3E+5 (C)	8.3E+5 (C)	8.3E+5 (C)	8.3E+5
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	NA	5.5E+5 (C)	5.5E+5 (C)	1,700	5.5E+5 (C)	5.5E+5 (C)	2.1E+8	8.9E+8	2.1E+9	2.3E+12	5.5E+5 (C)	5.5E+5 (C)	5.5E+5 (C)	5.5E+5
Triethanolamine	102716	NA	74,000	2.0E+5	NA	1.1E+8 (C)	NLV	NLV	NLV	NLV	1.5E+9	1.1E+8 (C)	1.1E+8 (C)	1.1E+8 (C)	1.1E+8
Triethylene glycol	112276	NA	1.1E+5 (C)	1.1E+5 (C)	NA	1.1E+5 (C)	NLV	NLV	NLV	NLV	ID	1.1E+5 (C,DD)	1.1E+5 (C,DD)	1.1E+5 (C,DD)	1.1E+5
3-Trifluoromethyl-4-nitrophenol	88302	NA	1.1E+5	3.1E+5	NA	1.2E+8	NLV	NLV	NLV	NLV	ID	2.4E+8 (DD)	3.7E+8 (DD)	3.0E+8 (DD)	NA
Trifluralin	1582098	NA	1.9E+5	5.7E+5	NA	1.2E+7	ID	ID	ID	ID	ID	5.7E+6	1.0E+7	7.4E+6	NA
2,2,4-Trimethyl pentane	540841	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	19,000
2,4,4-Trimethyl-2-pentene (I)	107404	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	ID	ID	ID	56,000
1,2,4-Trimethylbenzene (I)	95636	NA	2,100	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.5E+7	6.0E+8	6.0E+8	3.6E+10	1.1E+5 (C)	1.1E+5 (C)	1.1E+5 (C)	1.1E+5
1,3,5-Trimethylbenzene (I)	108678	NA	1,800	1,800	1,100	94,000 (C)	94,000 (C)	1.9E+7	4.6E+8	4.6E+8	3.6E+10	94,000 (C)	94,000 (C)	94,000 (C)	94,000
Triphenyl phosphate	115866	NA	1.1E+5 (C)	1.1E+5 (C)	NA	1.1E+5 (C)	NLV	NLV	NLV	NLV	ID	1.1E+5 (C)	1.1E+5 (C)	1.1E+5 (C)	1.1E+5
tris(2,3-Dibromopropyl)phosphate	126727	NA	930	930	NA	27,000 (C)	27,000 (C)	60,000	60,000	60,000	7.4E+6	20,000	27,000 (C)	24,000	27,000
Urea	57136	NA	ID (N)	ID (N)	NA	ID	NLV	NLV	NLV	NLV	ID	ID	ID	ID	NA
Vanadium	7440622	NA	72,000	9.9E+5	1.9E+5	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	5.5E+6 (DD)	6.2E+6 (DD)	5.9E+6 (DD)	NA
Vinyl acetate (I)	108054	NA	13,000	36,000	NA	2.4E+6 (C)	1.5E+6	2.0E+6	2.7E+6	5.9E+6	5.9E+9	2.4E+6 (C,DD)	2.4E+6 (C,DD)	2.4E+6 (C,DD)	2.4E+6
Vinyl chloride	75014	NA	40	40	300	20,000	2,800	29,000	1.7E+5	4.2E+5	8.9E+8	34,000	47,000	40,000	4.9E+5
White phosphorus (R)	12185103	NA	2.2	6.0	NA	58,000	NLV	NLV	NLV	NLV	ID	17,000 (DD)	18,000 (DD)	18,000 (DD)	NA

TABLE 3. SOIL: INDUSTRIAL AND COMMERCIAL II, III, AND IV PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS; PART 213 TIER 1 RISK-BASED SCREENING LEVELS (RBSLs)

			Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact			
Guidesheet Number →		#10	#21		#12	#13	#22	#23	#24	#25	#26	#27	#28	#29	#30
Hazardous Substance	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential Drinking Water Protection Criteria & RBSLs**	**Industrial and Commercial Drinking Water Protection Criteria & RBSLs**	**Groundwater Surface Water Interface Protection Criteria & RBSLs**	**Groundwater Contact Protection Criteria & RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria & RBSLs**	**Industrial and Commercial II**	**Commercial III**	**Commercial IV**	**Soil Saturation Concentration Screening Levels**
Xylenes (I)	1330207	NA	5,600	5,600	700	1.5E+5 (C)	1.5E+5 (C)	5.4E+7	6.5E+7	1.3E+8	1.3E+11	1.5E+5 (C)	1.5E+5 (C)	1.5E+5 (C)	1.5E+5
Zinc (B)	7440666	47,000	2.4E+6	5.0E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	6.3E+8	6.9E+8	6.6E+8	NA

FOOTNOTES

FOR THE PART 201 CRITERIA/
PART 213 RISK-BASED SCREENING LEVELS
RRD OPERATIONAL MEMORANDUM No. 1

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}. Concentrations greater than C_{sat} are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	Chemical Abstract Service Number	Residential Health-Based Drinking Water Value	Industrial-Commercial Health-Based Drinking Water Value
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on

the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg $CaCO_3$/L, use 400 mg $CaCO_3$/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.3E+6
Barium⊗	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.6E+5
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium⊗	(EXP(0.7852*(LnH)-2.715))*CF	1.101672-((LnH)*(0.041838))	NA	130
Chromium (III) ⊗	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702)) *CF	0.96	NA	64,000
Lead⊗	(EXP(1.273*(LnH)-3.296))*CF	1.46203-((LnH)*(0.14571))	NA	190
Manganese	EXP(0.8784*(LnH)+3.5199)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.1E+5
Pentachlorophenol	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	22,000

where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).
LnH = The natural logarithm of water hardness in mg $CaCO_3$/L.
* = The multiplication symbol.
⊗ = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these

rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Acceptable Combinations of Lead in Drinking Water and Soil

Drinking Water Concentration (ug/L)	Soil Concentration (mg/kg)
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent

concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.5714 to R 299.5726. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential & Commercial I	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Industrial & Commercial II	1,000 ppb, or 10,000 ppb if capped	16,000 ppb
Commercial III	1,000 ppb, or 10,000 ppb if capped	33,000 ppb
Commercial IV	1,000 ppb, or 10,000 ppb if capped	22,000 ppb

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylonitrile	107131	2.0 (M); 0.87	100 (M); 17
Alachlor	15972608	3.5	91
Antimony	7440360	2	1,400
Arsenic	7440382	50	23,000
Atrazine	1912249	4.3	86
Barium	7440393	1,900*	*
Benzene	71432	12	240
bis(2-Chloroethyl)ether	111444	1 (M); 0.79	100 (M); 20
Bromate	15541454	10 (M); 0.5	200 (M); 10
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.0E+6
Chloroform	67663	77	1,500
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2 (M); 0.93	200 (M); 40
3,3'-Dichlorobenzidine	91941	0.3 (M); 0.14	2,000 (M); 7.7
1,2-Dichloroethane	107062	6	120
1,1-Dichloroethylene	75354	24	480
1,2-Dichloropropane	78875	9.1	180
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.05 (M); 0.006	20 (M); 1.0
Ethylene glycol	107211	56,000	1.1E+6
Heptachlor	76448	0.01 (M); 0.0017	NLL
beta-Hexachlorocyclohexane	319857	0.024	20 (M)
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.6E+5
Lead	7439921	14*	*
Manganese	7439965	3600	72,000
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Mirex	2385855	0.02 (M); 1.6E-5	NLL
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,1,2-Tetrachloroethane	630206	19	380
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	2,300
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580

(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion.

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

(BB) The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table,

taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 ^oC and pH 6-10

		pH								
Temp (^oF)	Temp (^oC)	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH_3 assumes a default pH of 8 and default temperatures of 68°F and 85°F for cold water and warm water surface water, respectively. The resulting percent NH_3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH_3-N) concentration in the groundwater and the resulting NH_3 concentration

compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

(DD) Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

(EE) The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a surface water that has a phosphorus waste load allocation or is an inland lake. In those cases, contact the department for applicable values.
Total dissolved solids (TDS)	5.0E+5	If TDS data are not available, the TDS criterion may be used a screening level for the sum of the concentrations of the following substances: Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO): Cold receiving waters Warm receiving waters	 ≥ 7,000 ≥ 5,000	Since a low level of DO can be harmful to aquatic life, the criterion represents a minimum level that on-site samples must exceed. This is in contrast to other criteria which represent "not to exceed" concentrations. DO criteria are not applicable if groundwater Carbonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L.

(FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m^3.

"ID" means insufficient data to develop criterion.

"NA" means a criterion or value is not available or, in the case of background and CAS numbers, not applicable.

"NLL" means hazardous substance is not likely to leach under most soil conditions.
"NLV" means hazardous substance is not likely to volatilize under most conditions.

MARITIME HERITAGE CENTER BFRA
APPENDIX D, TABLE 4, PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS
SOIL BACKGROUND EVALUATION FOR SURFICIAL SOIL SAMPLES

			SAND - SAGINAW LOBE					SAND - Combined Statewide Data							BFRA SURFICIAL SOIL SAMPLES		
Chem	order	Dist.	n	x	SD	1 SD	2 SD	n	min	max	x	SD	1 SD	2 SD	# Initial exceedances	Maximum concentration	Comments related to MBSS
Aluminum	1	L	54	2339	1.952	4566	8677	93	260	16400	2373	1.891	4487	8272			
Antimony	2	non	3	< 1	--			7	< 1	6.45	< 1	--	2.7	5.9			
Arsenic	3	L	118	2.6	3.244	8	26	208	< 0.4	40	2.2	3.139	6.9	20.7			
Barium	4	L	71	12.4	2.014	25	49	147	2.6	200	17.7	2.693	47.7	123			
Beryllium	5	non	51	< 0.2	--			60	< 0.2	0.645	< 0.2	--	< 1	0.37			
Cadmium	6	non	67	< 2	--			131	<0.01	2.1	< 2	--	< 2	1.8			
Chromium	7	L	90	5.2	1.986	10	20	182	1	50	4.6	2.125	9.8	20.2			
Cobalt	8	non	61	< 5	--			82	< 3	8.7	< 5	--	< 5	7			
Copper	9	L	90	3.2	2.484	8	19	182	0.4	28	3.6	2.523	9.1	22.1			
Iron	10	L	55	3612	2.192	7918	16819	77	99.5	20400	3559	2.063	7342	14715			
Lead	11	L	95	2.9	2.963	9	24	175	1.0	30	3.5	2.906	10.2	28.3			
Lithium	12	L	62	2.3	2.223	5	11	78	< 2	20	2.14	2.402	5.1	11.9			
Magnesium	13	L	44	871	4.09	3562	13772	59	35	28000	821	3.471	2850	9411			
Manganese	14	L	62	50.3	3.809	192	692	91	1	1500	60.5	3.773	228	817			
Mercury	15	non	66	< 0.05	--			108	<0.018	0.62	<0.05	--	< 0.1	0.08	1	0.15	less than statewide maximum
Molybdenum	16	--	51	< 5	--			59	< 5	< 5	< 5	--	< 5	< 5			
Nickel	17	L	78	4.8	2.185	10	22	129	1.2	34	4.6	2.243	10.3	22.4			
Selenium	18	non	62	<0.5	--			103	<0.05	1.5	< 0.5	--	<0.5	0.56	5	0.68	less than statewide maximum
Silver	19	non	48	<0.5	--			69	<0.01	0.71	<0.25	--	<0.5	0.66			
Sodium	20	N	44	81	42.5	124	166	58	25	210	92	42.9	135	178			
Strontium	21	non	7	50	--			13	30	150	70	--	104	150			
Thallium	22	non	46	< 1	--			58	<0.5	6.13	< 1	--	< 1	5			
Titanium	23	N	44	121	43.2	164	207	46	13	227	124	44.4	168	213			
Vanadium	24	L	51	8.9	2.693	24	62	72	0.05	98	9	2.519	22.7	55			
Zinc	25	N	80	17	15.5	33	48	169	1.3	95	19	16.9	36	53			

Soil background data from the Michigan Background Soil Survey 2005, MBSS (MDEQ 2005) 1SD and 2SD for lobe data were calculated

Dist. = Distribution of data (L is Lognormal, non is nonparametric, N is Normal).
n = number of samples.
x = arithmetic or geometric mean, nonparametric median (mg/kg).
SD = arithmetic or geometric standard deviation, not applicable for nonparametric.
min = minimum value in data set (mg/kg).
max = maximum value in data set (mg/kg).

Data Range	Lognormal	Normal	Nonparametric
1 SD	(x)(SD)	x + (1)SD	84th quantile
2 SD	$(x)(SD)^{1.96}$	x + (2)SD	97.5 quantile

Note: all surficial soil samples were sand.

MARITIME HERITAGE CENTER BFRA
APPENDIX D, TABLE 5, PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS
SOIL BACKGROUND EVALUATION FOR SOIL BORING SAMPLES

			SAND - SAGINAW LOBE					SAND - Combined Statewide Data							BFRA SOIL BORING SAMPLES		
Chem	order	Dist.	n	x	SD	1 SD	2 SD	n	min	max	x	SD	1 SD	2 SD	# Initial exceedances	Maximum concentration	Comments related to MBSS
Aluminum	1	L	54	2339	1.952	4566	8677	93	260	16400	2373	1 691	4487	8272			
Antimony	2	non	3	< 1	--			7	< 1	6 45	< 1	--	2.7	5.9	2	8.0	>MBSS
Arsenic	3	L	118	2.6	3.244	8	26	208	< 0.4	40	2.2	3.139	6.9	20.7	8	25	< lobe-specific mean to 2SD
Barium	4	L	71	12.4	2.014	25	49	147	2.6	200	17.7	2.693	47.7	123			
Beryllium	5	non	51	< 0.2	--			60	< 0.2	0 645	< 0.2	--	< 1	0.37			
Cadmium	6	non	67	< 2	--			131	<0.01	2.1	< 2	--	< 2	1.8			
Chromium	7	L	90	5.2	1.986	10	20	182	1	50	4.6	2.125	9.8	20.2	1	50	= statewide maximum
Cobalt	8	non	61	< 5	--			82	< 3	8.7	< 5	--	< 5	7	2	7.4	< statewide maximum
Copper	9	L	90	3.2	2.484	8	19	182	0.4	28	3.6	2.523	9.1	22.1			
Iron	10	L	55	3612	2.192	7918	16819	77	99.5	20400	3559	2.083	7342	14715	5	92,000	>MBSS
Lead	11	L	95	2.9	2.963	9	24	175	1.0	30	3.5	2.906	10.2	28.3	1	1,300	>MBSS
Lithium	12	L	62	2.3	2.223	5	11	78	< 2	20	2.14	2.402	5 1	11.9			
Magnesium	13	L	44	871	4.09	3562	13772	59	35	28000	821	3.471	2850	9411			
Manganese	14	L	62	50.3	3.809	192	692	91	1	1500	60.5	3.773	228	817			
Mercury	15	non	66	< 0.05	--			108	<0.018	0.62	<0.05	--	< 0 1	0.08	5	3.2	>MBSS
Molybdenum	16	--	51	< 5	--			59	< 5	< 5	< 5	--	< 5	< 5	3	3 4	<MBSS
Nickel	17	L	78	4.8	2.185	10	22	129	1.2	34	4.6	2.243	10.3	22.4			
Selenium	18	non	62	<0.5	--			103	<0 05	1.5	< 0.5	--	<0.5	0.56	9	2 1	>MBSS
Silver	19	non	48	<0.5	--			69	<0.01	0.71	<0.25	--	<0.5	0.66			
Sodium	20	N	44	81	42.5	124	166	58	25	210	92	42.9	135	178			
Strontium	21	non	7	50	--			13	30	150	70	--	104	150			
Thallium	22	non	46	< 1	--			58	<0.5	6.13	< 1	--	< 1	5			
Titanium	23	N	44	121	43.2	164	207	46	13	227	124	44.4	168	213			
Vanadium	24	L	51	8.9	2 693	24	62	72	0.05	98	9	2.519	22.7	55			
Zinc	25	N	80	17	15.5	33	48	169	1.3	95	19	16.9	36	53	3	1,300	>MBSS

Soil background data from the Michigan Background Soil Survey 2005, MBSS (MDEQ 2005) 1SD and 2SD for lobe data were calculated

Dist. = Distribution of data (L is Lognormal, non is nonparametric, N is Normal).
n = number of samples.
x = arithmetic or geometric mean, nonparametric median (mg/kg).
SD = arithmetic or geometric standard deviation, not applicable for nonparametric.
min = minimum value in data set (mg/kg).
max = maximum value in data set (mg/kg).

Data Range	Lognormal	Normal	Nonparametric
1 SD	(x)(SD)	x + (1)SD	84th quantile
2 SD	$(x)(SD)^{1.96}$	x + (2)SD	97.5 quantile

Note: all soil boring samples were sand, some with silt or clay, except SB-03 (loam, silt) and SB-10 (silt).

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APPENDIX D, TABLE 6, PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS

Groundwater Surface Water Interface (GSI) criteria for groundwater and GSI Protection criteria for soils

GSI criteria for Saginaw River for metals with G code in ppb			
Parameter	Groundwater	FAV	Soil
Barium	1200	6813	790,000
Berylium	26	468	330,000
Cadmium	4.5	23.7	5,400
Chromium (III)	160	2468.7	4,600,000,000
Copper	20	65.4	120,000
Lead	28	503.5	4,900,000
Manganese	4400	19078	88,000
Nickel	120	2081	120,000
Zinc	260	521.5	260,000

Source: MDEQ 2008b

Note: These are criteria used by the MDEQ Saginaw Bay District office; water hardness used was 257 mg $CaCO_3$ per liter.

The final acute values (FAV) are protective of aquatic life. The calculation of the FAV is provided to allow the identification of any exceedance of an acute GSI criterion. Where an exceedance of an acute GSI criterion exists, an evaluation must be done to determine appropriate action in accordance with provisions of R 299.5716, R 299.5526(4) and RRD Operational Memorandum No. 5.