

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

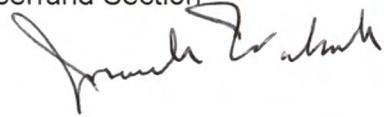
INTEROFFICE COMMUNICATION

TO: Paul Owens, District Supervisor, Remediation and Redevelopment Division  
Southeast Michigan District Office

FROM: Joseph Walczak, Brownfield Assessment Program Manager  
Site Assessment and Site Management Unit, Superfund Section  
Remediation and Redevelopment Division

DATE: March 30, 2016

SUBJECT: Brownfield Redevelopment Assessment Report for the Tree Farm Property,  
Rochester Hills, Oakland County, Michigan

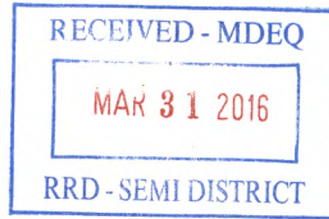


I have enclosed, for your files, a copy of the Brownfield Redevelopment Assessment Report for the Tree Farm Property located at 1406 East Avon Road in Rochester Hills, Oakland County, Michigan. If you have any questions concerning this report, please contact me.

Enclosure

cc: Teresa Ducsay, MDEQ  
Site File





**BROWNFIELD REDEVELOPMENT ASSESSMENT REPORT**

**FOR**

**TREE FARM**

**1406 EAST AVON ROAD  
ROCHESTER HILLS, MICHIGAN 48307**

**MIB000000196**

**March 14, 2016**

REPORT PREPARED BY: Teresa Duksay DATE: 3/14/2016

Teresa Duksay, Investigation Team Leader  
Site Assessment and Site Management Unit

REVIEWED AND APPROVED BY: Daria W. Devantier DATE: 3-22-2016

Daria W. Devantier, Chief  
Site Assessment and Site Management Unit

Michigan Department of Environmental Quality  
Remediation and Redevelopment Division  
Superfund Section  
P.O. Box 30426  
Lansing, Michigan 48909

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## EXECUTIVE SUMMARY

The Michigan Department of Environmental Quality (MDEQ) conducts Brownfield Redevelopment Assessments (BFRAs) to assist local communities with redevelopment projects by providing environmental assessment information. BFRAs are conducted by the MDEQ to satisfy the Site Specific Assessment task of its 128(a) Brownfield Cooperative Agreement with the United States Environmental Protection Agency. The BFRAs provide information on brownfield properties where potential environmental contamination may be acting as an impediment to future redevelopment activities. They also provide information to determine if a 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 provide recommendations for addressing issues during redevelopment. A facility is defined as any area, place, or property that contains a hazardous substance at a concentration that exceeds Generic Residential Cleanup 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 Tree Farm 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 any other stakeholder 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 Nonresidential Cleanup Criteria to provide additional information to promote appropriate redevelopment activities.

A request dated January 28, 2015, and an application were submitted to the MDEQ by the Director of Community and Economic Development for the city of Highland Park to request a BFRA of the Property. The Property is owned by the city of Highland Park and is located at 1406 East Avon Road in Rochester Hills, Michigan. The Property meets the definition of a brownfield based on its potential for being contaminated due to buried waste present on the Property. Previous uses of the Property include a tree farm and disposal operation for trees that were removed from neighborhoods in the city of Highland Park along with some municipal waste. Based on historical plat maps obtained, the city of Highland Park has owned the Property since about 1947. The 1925 plat map of the parcel listed Robert Lowe as the owner of the Property.

The MDEQ conducted a BFRA of the Tree Farm property in April 2011, which originally encompassed about 43.3 acres. Then, in 2013, the parcel was split and a portion of the

original acreage was sold and redeveloped. Soil and Materials Engineers, Inc. completed a Phase I Environmental Assessment Report of the remaining portion of the Property and the report is dated June 18, 2014. The Phase I indicated the following recognized environmental conditions at the Tree Farm property: historically used as a landfill for disposal of tree stumps by the city of Highland Park and trees sprayed with DDT; soil disturbances consistent with subsurface disposal were present from 1940 until the early 1990s, indicating the potential releases of hazardous substances; and the potential generation of methane from decomposition of landfilled organic matter. The city plans to sell the remaining portion of the Property; however, the unknown environmental conditions are a hindrance to further development. Therefore, the 2015 BFRA of the Tree Farm property was conducted to provide further assessment and methane evaluation to aid in future redevelopment of the remaining portion of the property.

The request by the Director of Community and Economic Development for the city of Highland Park resulted in the MDEQ conducting a BFRA of the Property. This BFRA included file and historic information searches, a reconnaissance inspection of the Property, the collection of surficial soil, subsurface soil, groundwater, soil gas, surface water, and sediment samples, Global Positioning System (GPS) data collection of sample locations and Property features, and the collection of site feature photographs.

The reconnaissance inspection was conducted on June 2, 2015, and included the team leader, an MDEQ geologist, and Mr. David Lancio, the private individual interested in redeveloping the Property. The field sampling event was conducted in August and September 2015 and included the collection of 11 surficial soil, 10 soil boring, 10 groundwater, 2 surface water, and 2 sediment samples. MDEQ staff also collected 19 soil gas samples from the Property to determine the presence of methane. Photographs of general property conditions were taken along with GPS data to determine sample and feature locations.

Analysis of the samples detected the presence of antimony, arsenic, barium, benzo(b)fluoranthene, benzo(a)pyrene, cadmium, chromium (total), cobalt, copper, cyanide, 4-4'-DDD, 4-4'-DDE, 4-4'-DDT, fluoranthene, iron, lead, manganese, mercury, methane, molybdenum, naphthalene, nickel, phenanthrene, selenium, silver, tetrachloroethylene, vanadium, and zinc at concentrations greater than the Generic Residential Cleanup Criteria or Screening Levels. Arsenic, benzo(b)fluoranthene, benzo(a)pyrene, and lead were detected in both the surficial soil and soil boring samples at concentrations which exceed Soil Residential Direct Contact Criteria. Arsenic, iron, lead, manganese, and vanadium were detected in the temporary monitoring well samples at concentrations that exceed Residential Drinking Water Criteria. Methane was detected in the groundwater and soil gas samples. Methane was detected in two of the soil vapor samples at concentrations that exceed the Vapor Intrusion Indoor Air Screening Level.

Due to the elevated levels of contaminants above Part 201 Generic Residential Cleanup Criteria, MDEQ staff has determined that the Property does meet the definition of a

facility as defined in Part 201. Based on the findings of the BFRA, MDEQ staff recommends that the following issues should be addressed before or during the redevelopment of the Property:

Action should be taken to abate the potential threat caused by the presence of contaminants exceeding Residential Cleanup Criteria in the soils by mitigation of these contaminants or restricting access to the contaminated areas. Arsenic, benzo(b)fluoranthene, benzo(a)pyrene, and lead were detected in both the surficial soil and soil boring samples at concentrations which exceed the Residential Direct Contact Criteria. In some cases, further evaluation of certain inorganic analytes found at levels above default background levels may show that some of these inorganic analytes may be naturally occurring at those levels, thereby eliminating the need for mitigation. The full extent of the contamination should be determined and appropriate precautions implemented to prevent exposure during redevelopment.

Because of contaminants detected in the shallow groundwater at levels exceeding drinking water standards, the groundwater at the Property should not be used for drinking water purposes; redevelopment activities should not exacerbate contaminated groundwater migration.

Because methane was detected at levels exceeding Vapor Intrusion Indoor Air Screening Level in the soil vapor samples collected in the fill area, consideration for the construction of buildings over and adjacent to tree disposal areas may require constructed vapor mitigation systems, or removal of the tree waste.

The "due care" obligations must be met as specified in Section 7a of Part 201 during redevelopment activities. These obligations include not exacerbating the existing contamination; assure there are no 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, Southeast Michigan District Office at 586-753-3700.

## 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). 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 BFRA was requested for the Tree Farm property (Property) by the Director of Community and Economic Development for the city of Highland Park to assist in their redevelopment plans for the Property.

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 exposure 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, groundwater, soil gas, surface water and sediment samples, Global Positioning System (GPS) data collection of sample locations and Property features, the collection of site feature photographs, data evaluation, and the compilation of all this data into this report.

## PROPERTY BACKGROUND

### Property Description

The Tree Farm property is located at 1406 East Avon Road, Rochester Hills, Michigan, Oakland County, Township 3 North, Range 11 East, Section 24. It should be noted that Avon Township in Oakland County became the city of Rochester Hills on November 20, 1984. The latitude is 42°40'01" north and the longitude is 83°06'24" west, measured near the center of the Property. The Property is an irregular shaped parcel that encompasses two parcels equaling approximately 33.22 acres. This includes parcel numbers 70-15-24-100-050 (32.49 acres) and 70-15-24-100-021 (0.73 acres). The common address for the large parcel (70-15-24-100-050) is 1406 East Avon Road, Rochester Hills, Michigan and there is not a common address for the smaller parcel (70-15-24-100-021). The Tree Farm property was investigated in 2011 when a BFRA was conducted by the MDEQ. At that time, the Property included two parcel numbers 70-15-24-100-020 (~42.57 acres) and 70-15-24-100-021 (0.73 acres). Parcel number 70-15-24-100-020 was split in 2013 and this resulted in parcel numbers 70-15-24-100-049 (11.58 acres) and 70-15-24-100-050 (32.49 acres). Parcel number 70-15-24-100-049 was purchased by Sunoco Pipeline LP on October 17, 2013, and the parcel is located in the northwest corner of the original Tree Farm property.

The Tree Farm property is located in an area with residential/commercial properties to the west and south; the Southeast Oakland County Resource Recovery Authority Landfill is adjacent to the parcel to the east. The Property is bordered on the north by East Avon Road with a large mobile home park located on the north side of East Avon Road. See Figure 1 for the Property Location map.

### Property History

According to the application information received from the city of Highland Park, the historical use of the Property is not fully known. The current condition of the Property was described as vacant and unoccupied. A variety of current and historical information and databases, including Property file information, historical aerial photographs, Sanborn® maps, and the Polk's City Directory were used to identify previous uses of the Property. The major portion of this historical informational search included procuring much of this information from Environmental Data Resources Inc.'s (EDR) historical data packages. These EDR historical reports are provided in Appendix A of the 2011 BRFA report for the Tree Farm property.

Historical aerial photos of the Property indicated disturbed/barren soil areas in 1975 and 1980; this may indicate either dumping and/or digging activities occurred during this time period. There appears to be some buildings present on the Property in the 1937, 1940, and 1949 aerial photos. There is a very large building (possibly a barn) with a

very small building adjacent to it, located on the east side of the Property with a long entrance drive; this may be located on the small parcel. There is a shorter drive to buildings (possibly a house and/or a garage) on the west side of the Property. The 1956 and 1957 aerial photos have additional roads going south along the western boundary of the Property and east to west across the middle of the Property. The large building/barn is no longer visible (only the building footprint) and there is a large area of surface disturbance near the southeast corner of the parcel along the Honeywell Ditch. Most of the roads/drives on the Property are no longer visible in the 1961 and 1964 aerial photos except for the drive along the east side of the Property and no surface disturbance is visible. The 1967 aerial photo is similar, but even the small building on the east side of the Property is not visible. The 1972 aerial photo has two large areas of surface disturbance and two small ones.

Based on the historical Utica Quadrangle topographic map from 1968, there appears to be a power line and/or pipeline that runs adjacent to the west side of the Property and an unimproved road which runs south near the east side of the Property into the location of the former large building. The Utica Quadrangle topographic map, photo-revised in 1973 and 1983, extends the unimproved road west across the Property.

A map obtained from the Stan's Trucking site file in the MDEQ, Remediation and Redevelopment Division, Superfund Section has the Tree Farm property identified as the Highland Park Woodfill. There is a 'received' date stamp on the map of November 30, 1981. The 1966 plat map of the Property listed the owner as Highland Park City. The 1947 plat map listed the owner of the Property as city of Highland Park (43.3 acres) and the small parcel is not separated out. The Land Ownership Atlas of Avon Township from 1925 listed Robert Lowe as the owner of the Property encompassing 44 acres. The Land Ownership Atlas of Avon Township from 1908 listed Mrs. S. K. Shaff as the owner of the Property encompassing 46 acres. The Land Ownership Atlas of Avon Township from 1886 listed E. Pearsall as the owner of the Property encompassing 55 acres. The Land Ownership Atlas of Avon Township from 1872 listed W. M. Bronson as the owner of the Property encompassing 42 acres.

The original Tree Farm property included parcel 70-15-24-100-020 (42.57 acres) and 70-15-24-100-021 (0.73 acres). However, in 2013, parcel 70-15-24-100-020 was split; this resulted in two parcels, 70-15-24-100-049 (11.58 acres) and 70-15-24-100-050 (32.49 acres). The common address for parcel 70-15-24-100-049 is 1232 Avon Road East, Rochester Hills, Michigan and the common address for parcel 70-15-24-100-050 is 1406 Avon Road East, Rochester Hills, Michigan. According to the city of Rochester Hills Tax and Assessing information for parcel 70-15-24-100-049, the parcel was purchased by Sunoco Pipeline LP on October 7, 2013. McDowell and Associates conducted a Preliminary Soils Investigation in April 2004 of the original Tree Farm property, approximately 43.3 acres. A total of 16 backhoe test pit excavations were

completed with depths ranging from 2 to 13 feet. Four of the test pits revealed layers of tree stumps and limbs.

The MDEQ conducted a BFRA of the original Tree Farm property in April 2011, which encompassed about 43.3 acres, which was prior to the parcel being split. The BFRA included file and information searches, reconnaissance inspections of the Property, a geophysical survey of subsurface conditions, the collection and analyses of 15 surficial soil, 15 subsurface soil, 4 surface water, and 4 sediment samples, GPS data collection of sample locations and Property features, and the collection of site feature photographs. The sample results indicated contaminants were present in the surficial soil and soil boring samples at concentrations above Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (Part 201) Soil Residential Direct Contact Criteria. Some of these soil samples were collected from an area with uprooted trees revealing waste entangled in the roots and soil. Physical conditions of the Tree Farm property suggested the possibility of subsurface burial of waste in two large fill areas with debris protruding through the ground surface and exposed debris along the bank of the two fill areas. The geophysical survey results of the fill areas indicated the presence of a significant amount of buried metal across the western fill area with numerous larger objects detected across the area. The geophysical survey results for the eastern fill area indicate that most of the buried metal is located in the northeast portion of this area, and the area appears to have received more construction and demolition debris as concrete and rebar were observed.

Soil and Materials Engineers, Inc. completed a Phase I Environmental Assessment Report for the Property located at 1406 Avon Road, Rochester Hills, Michigan, and the report is dated June 18, 2014. The Tree Farm property included parcel 70-15-24-100-050 (32.49 acres) and 70-15-24-100-021 (0.73 acres). The Phase I indicated the following recognized environmental conditions at the Tree Farm property: historically used as a landfill for disposal of tree stumps by the city of Highland Park; trees sprayed with DDT; soil disturbances consistent with subsurface disposal were present from 1940 until the early 1990s, indicating the potential releases of hazardous substances; and the potential generation of methane from decomposition of buried organic matter. The 2011 BFRA for the Tree Farm detected the presence of semi-volatiles and metals in the soil.

The BFRA of the Tree Farm property was requested by the City Attorney and Chief of Staff for the city of Highland Park. The Property has been owned by the city of Highland Park at least since 1966, based on the Plat Map from Oakland County dated 1966. The city plans to sell the Property; however, the recognized environmental conditions are a hindrance. This request resulted in the investigation of this Property under the BFRA Program.



## PROCEDURES AND RESULTS

### Reconnaissance Inspection Observations

A BFRA property reconnaissance was conducted at the Property on June 2, 2015. The purpose of the reconnaissance was to gather information to be used in development of the BFRA sampling plan, to determine appropriate health and safety requirements, and to determine potential sampling locations. The team documented the features, known and potential source areas, and debris types located throughout the Property and identified the environmental concerns associated with each area of concern. During this inspection, the Property was screened with appropriate safety equipment, including a photoionization detector, a 4-gas (combustible gas/O<sub>2</sub>/H<sub>2</sub>S/CO) meter, and a radiation detector to determine on-Property health and safety issues. The instruments did not detect any hazardous conditions on the Property above background levels.

Known/suspected areas of potential concern included the following based on the field observations from the Property reconnaissance:

- Potentially impacted soils indicated by disturbed soils in historical aerial photos;
- Debris present - concrete rubble, asphalt pieces, household appliances, tires, and a rusty drum exposed along the edge of an apparent fill area;
- 55-gallon oil drum that appears to have leaked onto the ground surface;
- Uprooted trees with waste (glass, metal, etc.) bound into the roots and soil; and
- Potential for methane gas.

On August 24, 2015, a sampling inspection reconnaissance was conducted at the Property for the purpose of locating the actual sample locations prior to collection of the samples. This reconnaissance was also conducted to determine whether there were any changes in the conditions or features of the Property.

On the Property, there was debris present (household appliances, tires, concrete rubble) and uprooted trees with waste bound into the roots and soil in areas that appeared to have surface disturbance in the 2005 aerial photo. There was an area in the northeast corner of the parcel which had rows of trees and depressions/divots where trees were removed (an indication of a tree farm). There remains a large building footprint and two openings to an underground concrete vault (likely a septic tank) on the east side of the Property. Also, there was a 55-gallon oil drum that appeared to have leaked near the building footprint. There was a buried gas pipeline and an electrical power line that runs diagonally along the northern boundary of the Property from near the southwest corner

to the northeast corner of the parcel. Near the middle of the Property, the pipeline shifts away from the power line, from a northeasterly direction to a northerly direction, to a marker located adjacent to Avon Road. The Honeywell Ditch runs along the southeast corner of the Property and there exists an approximately 24-inch clay pipe discharging into the ditch with a steady flow of water. The parcel was not fenced, but vehicular access to the Property is restricted by a locked gate at the entrance drive off Avon Road. Historical aerial photos of the parcel indicated areas of surface disturbed on the Property, which may be an indication that dumping or digging activities had occurred at the Property. During the 2011 BFRA of the Property, a geophysical survey was conducted in these areas that confirmed buried materials.

See Figure 2 for the Property Features map. Photographs of the Property were taken during the BFRA and are provided in Appendix A.

### **Sampling Procedures**

The field sampling event was conducted in August and September 2015 and included the collection of 11 surficial soil, 11 soil boring, 10 groundwater, 2 surface water, and 2 sediment samples from suspected areas of contamination on the Property. MDEQ staff also collected 19 soil gas samples from the Property to determine the presence of methane. The sample locations were surveyed in utilizing a Trimble model GeoXH GPS unit with an accuracy of approximately 0.5 meters. The samples were collected in order to:

- Determine the concentrations 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. In addition to the analysis specified in the work plan, polychlorinated biphenyl (PCB) analysis was added for some of the soil, sediment, and groundwater 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. Soil samples collected for other analyses were not chemically preserved. Water samples analyzed for VOCs were field preserved with hydrochloric acid. Water samples analyzed for semi-volatile organic (SVOC)/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 2 and water samples analyzed for cyanide were field preserved with sodium hydroxide to a pH of more than 12.

The MDEQ quality assurance/quality control procedures as outlined in the Michigan Department of Environmental Quality Brownfield Redevelopment Assessment Quality Assurance Project Plan (May 27, 2014) were followed. Upon collection of the samples, all samples were labeled and placed in insulated sample shipment coolers. The interiors of the shipment coolers were kept at a temperature of approximately 4° Celsius with ice and delivered to the MDEQ Environmental Laboratory. Samples were transported by the Team Leader to the MDEQ laboratory for analysis.

### Sample Analysis

Soil and water samples were analyzed for organic compounds and inorganic analytes, consistent with the MDEQ RRD Operational Memorandum 2, Attachment 1, by the MDEQ Environmental Laboratory utilizing the following methods:

Compound/Analyte	Analytical Method	
	Soil	Water
Volatile Organics	8260	8260
Semi-volatile Organics	8270	8270
Pesticides	8081/8082	8081/8082
PCBs	8081/8082	8081/8082
Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc	6020/200.8	6020/200.8
Cyanide	ASTM D7284	ASTM D7511-09
Iron	6010/200.7	6010/200.7
Mercury	7471/245.5	7470/245.1

Soil gas and groundwater samples were analyzed for these organic compounds by the MDEQ Environmental Laboratory utilizing the following methods:

Compound/Analyte	Analytical Method	
	Air	Water
Ethane	8015	8015
Ethylene	8015	8015
Methane	8015	8015

It should be noted that with regard to the chromium analyses, only total chromium was analyzed. Upon analysis, laboratory results were sent to the Team Leader and processed for this report. Laboratory analytical data for all the sample analyses are provided in Appendix B.

#### **Sample Analytical Results Compared to Criteria**

Contaminant concentrations in samples exceeding the Generic Cleanup Criteria (Criteria) promulgated pursuant to Part 201 are noted in the attached summary tables and will be described in the following sections. The current Part 201 Criteria are provided in Appendix C. Sample contaminant concentrations were rounded to two significant figures whenever laboratory results were reported in more than two significant figures. This is to allow for comparison of laboratory results to Criteria, which are presented in two significant figures. MDEQ RRD Operational Memorandum 1 states that Criteria "should be compared to analytical data presented in two significant figures."

The attached summary tables show all sample Criteria exceedances. However, not all Criteria may be applicable. An applicable criterion is a cleanup criterion for a relevant pathway. A pathway that is not relevant will not have applicable criteria. A pathway evaluation will be completed in the Discussion section. If an exposure pathway is not listed below, it means that no exceedances of Criteria in that pathway were found.

As noted above regarding the chromium analyses, only total chromium was analyzed. Per Part 201 rules, the total chromium concentrations are compared to the hexavalent chromium criteria. The default values for hardness and pH were used to determine the "G" footnoted Groundwater Surface Water Interface (GSI) Criteria. These are a hardness value of 150 and a pH of 7.

It should be noted that the MDEQ Environmental Laboratory analyzes for both naphthalene and 2-methylnaphthalene using methods 8260 for VOCs and 8270 for

SVOCs. These analyses are responsive to guidance in the MDEQ's RRD Operational Memorandum 2. The laboratory qualifies method 8260 results for these two compounds stating that since these compounds have boiling points greater than 200° Celsius, these compounds are better analyzed by method 8270. However, the extraction method used for method 8270 has the potential to affect the concentration due to low extraction recovery, thereby giving a lower reported concentration for these compounds. To comprehensively reflect laboratory data that has been generated for this site, both 8260 and 8270 results are listed in the sample data summary tables under their respective analysis - volatiles and/or semi-volatiles. For purposes of this report, the unqualified data represented by method 8270 for these compounds were selected for comparison to Part 201 Criteria. However, given the conundrum between these two analytical methods for these two chemicals, without a more comprehensive data set from this site, this data selection approach included in this report may not accurately represent the risks posed by these compounds.

Background samples for the surficial soil, surface water, and sediment samples were not collected from the Tree Farm property. Background samples for the soil boring and groundwater samples were collected from an area near the northwest corner of the Tree Farm property that seemed undisturbed or impacted by waste disposal. However, they were not collected in a statistical manner to determine a property-specific background, but to determine the potential for migration of contaminants onto the Property and the potential for naturally occurring elevated levels of contaminants. 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.

### **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 surficial soils at the Property. To accomplish this sampling task, 11 surficial soil samples were collected during the BFRA. All samples were collected using stainless steel trowels from depths ranging from 0 to 10 inches below the ground surface according to the procedures outlined in the work plan.

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

Analysis of the surficial soil 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 surficial soil samples and the compounds/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 Tree Farm property.

***Exceedances above the Soil Residential 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 Drinking Water Criteria.

Antimony was detected in SS-2015-03 at a concentration of 8.4 parts per million (ppm) and SS-2015-07 at a concentration of 6.3 ppm, which exceed the 4.3 ppm Criterion.

Arsenic was detected in SS-2015-02 at a concentration of 5.9 ppm, SS-2015-03 at a concentration of 39 ppm, SS-2015-05 at a concentration of 7.9 ppm, SS-2015-07 at a concentration of 22 ppm, SS-2015-08 at a concentration of 6.0 ppm, SS-2015-09 at a concentration of 10 ppm, SS-2015-10 at a concentration of 11 ppm, and SS-2015-11 at a concentration of 9.4 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Chromium (total) was detected in SS-2015-02 at a concentration of 40 ppm, SS-2015-03 at a concentration of 35 ppm, SS-2015-07 at a concentration of 37 ppm, and SS-2015-08 at a concentration of 35 ppm, which exceed the 30 ppm Criterion.

Cobalt was detected in SS-2015-03 at a concentration of 7.7 ppm and SS-2015-07 at a concentration of 12 ppm, which exceed the 0.8 ppm Criterion and the statewide default background level of 6.8 ppm.

Iron was detected in SS-2015-02 at a concentration of 16,000 ppm, SS-2015-02-DUP at a concentration of 14,000 ppm, SS-2015-03 at a concentration of 19,000 ppm, SS-2015-05 at a concentration of 16,000 ppm, SS-2015-07 at a concentration of 40,000 ppm, SS-2015-08 at a concentration of 15,000 ppm, SS-2015-09 at a concentration of 21,000 ppm, SS-2015-10 at a concentration of 13,000 ppm, and SS-2015-11 at a concentration of 14,000 ppm, which exceed the 4.0 ppm Criterion and the statewide default background level of 0.39 ppm.

Lead was detected in SS-2015-03 at a concentration of 1,100 ppm, which exceeds the 700 ppm Criterion and the statewide default background level of 21 ppm.

Manganese was detected in SS-2015-03 at a concentration of 460 ppm, SS-2015-07 at a concentration of 510 ppm, SS-2015-08 at a concentration of 810 ppm, and SS-2015-10 at a concentration of 510 ppm, which exceed the 1.0 ppm Criterion and the statewide default background level of 440 ppm.

Molybdenum was detected in SS-2015-02 at a concentration of 2.1 ppm, SS-2015-03 at a concentration of 3.5 ppm, SS-2015-07 at a concentration of 7.6 ppm, SS-2015-09 at a concentration of 2.1 ppm, and SS-2015-10 at a concentration of 2.6 ppm, which exceed the 1.5 ppm Criterion.

Nickel was detected in SS-2015-07 at a concentration of 160 ppm, which exceeds the 100 ppm Criterion and the statewide default background level of 20 ppm.

Selenium was detected in SS-2015-03 at a concentration of 16 ppm, which exceeds the 4.0 ppm Criterion and the statewide default background level of 0.41 ppm.

Tetrachloroethylene was detected in SS-2015-07 at a concentration of 360 parts per billion (ppb) and SS-07 at a concentration of 32,000 ppb, which exceed the 100 ppb Criterion.

Zinc was detected in SS-2015-07 at a concentration of 2,600 ppm and SS-2015-11 at a concentration of 5,400 ppm, which exceed the 2,400 ppm Criterion and the statewide default background level of 47 ppm.

***Exceedances above the Soil Nonresidential 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 Nonresidential Drinking Water Criteria.

Antimony was detected in SS-2015-03 at a concentration of 8.4 ppm and SS-2015-07 at a concentration of 6.3 ppm, which exceed the 4.3 ppm Criterion.

Arsenic was detected in SS-2015-02 at a concentration of 5.9 ppm, SS-2015-03 at a concentration of 39 ppm, SS-2015-05 at a concentration of 7.9 ppm, SS-2015-07 at a concentration of 22 ppm, SS-2015-08 at a concentration of 6.0 ppm, SS-2015-09 at a concentration of 10 ppm, SS-2015-10 at a concentration of 11 ppm, and SS-2015-11 at a concentration of 9.4 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Chromium (total) was detected in SS-2015-02 at a concentration of 40 ppm, SS-2015-03 at a concentration of 35 ppm, SS-2015-07 at a concentration of 37 ppm, and SS-2015-08 at a concentration of 35 ppm, which exceed the 30 ppm Criterion.

Cobalt was detected in SS-2015-03 at a concentration of 7.7 ppm and SS-2015-07 at a concentration of 12 ppm, which exceed the 2.0 ppm Criterion and the statewide default background level of 6.8 ppm.

Iron was detected in SS-2015-02 at a concentration of 16,000 ppm, SS-2015-02-DUP at a concentration of 14,000 ppm, SS-2015-03 at a concentration of 19,000 ppm, SS-2015-05 at a concentration of 16,000 ppm, SS-2015-07 at a concentration of 40,000 ppm, SS-2015-08 at a concentration of 15,000 ppm, SS-2015-09 at a concentration of 21,000 ppm, SS-2015-10 at a concentration of 13,000 ppm, and SS-2015-11 at a concentration of 14,000 ppm, which exceed the 4.0 ppm Criterion and the statewide default background level of 0.39 ppm.

Lead was detected in SS-2015-03 at a concentration of 1,100 ppm, which exceeds the 700 ppm Criterion and the statewide default background level of 21 ppm.

Manganese was detected in SS-2015-03 at a concentration of 460 ppm, SS-2015-07 at a concentration of 510 ppm, SS-2015-08 at a concentration of 810 ppm, and SS-2015-10 at a concentration of 510 ppm, which exceed the 1.0 ppm Criterion and the statewide default background level of 440 ppm.

Molybdenum was detected in SS-2015-07 at a concentration of 7.6 ppm, which exceeds the 1.5 ppm Criterion.

Nickel was detected in SS-2015-07 at a concentration of 160 ppm, which exceeds the 100 ppm Criterion and the statewide default background level of 20 ppm.

Selenium was detected in SS-2015-03 at a concentration of 16 ppm, which exceeds the 4.0 ppm Criterion and the statewide default background level of 0.41 ppm.

Tetrachloroethylene was detected in SS-2015-07 at a concentration of 360 ppb and SS-07 at a concentration of 32,000 ppb, which exceed the 100 ppb Criterion.

Zinc was detected in SS-2015-11 at a concentration of 5,400 ppm, which exceeds the 5,000 ppm Criterion and the statewide default background level of 47 ppm.

***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.

Arsenic was detected in SS-2015-02 at a concentration of 5.9 ppm, SS-2015-03 at a concentration of 39 ppm, SS-2015-05 at a concentration of 7.9 ppm, SS-2015-07 at a concentration of 22 ppm, SS-2015-08 at a concentration of 6.0 ppm, SS-2015-09 at a concentration of 10 ppm, SS-2015-10 at a concentration of 11 ppm, and SS-2015-11 at a concentration of 9.4 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.



Cadmium was detected in SS-2015-03 at a concentration of 4.8 ppm and SS-2015-07 at a concentration of 4.3 ppm, which exceeds the 3.6 ppm Criterion and the statewide default background level of 1.2 ppm.

Chromium (total) was detected in SS-2015-02 at a concentration of 40 ppm, SS-2015-03 at a concentration of 35 ppm, SS-2015-07 at a concentration of 37 ppm, SS-2015-08 at a concentration of 35 ppm, SS-2015-10 at a concentration of 29 ppm, and SS-2015-11 at a concentration of 27 ppm, which exceed the 3.3 ppm Criterion and the statewide default background level of 18 ppm.

Cobalt was detected in SS-2015-03 at a concentration of 7.7 ppm and SS-2015-07 at a concentration of 12 ppm, which exceed the 2.0 ppm Criterion and the statewide default background level of 6.8 ppm.

Cyanide was detected in SS-2015-02 at a concentration of 0.41 ppm, SS-2015-03 at a concentration of 1.7 ppm, SS-2015-05 at a concentration of 0.83 ppm, SS-2015-07 at a concentration of 1.0 ppm, SS-2015-10 at a concentration of 0.43 ppm, and SS-2015-11 at a concentration of 0.46 ppm, which exceed the 0.10 ppm Criterion and the statewide default background level of 0.39 ppm.

Fluoranthene was detected in SS-2015-02-DUP at a concentration of 7,800 ppb, SS-2015-03 at a concentration of 38,000 ppb, SS-2015-07 at a concentration of 9,800 ppb, and SS-2015-09 at a concentration of 9,200 ppb, which exceed the 5,500 ppb Criterion.

Manganese was detected in SS-2015-03 at a concentration of 460 ppm, SS-2015-07 at a concentration of 510 ppm, SS-2015-08 at a concentration of 810 ppm, and SS-2015-10 at a concentration of 510 ppm, which exceed the 56 ppm Criterion and the statewide default background level of 440 ppm.

Mercury was detected in SS-2015-03 at a concentration of 1.0 ppm, SS-2015-05 at a concentration of 0.20 ppm, SS-2015-07 at a concentration of 1.7 ppm, SS-2015-09 at a concentration of 0.20 ppm, SS-2015-10 at a concentration of 0.20 ppm, and SS-2015-11 at a concentration of 0.30 ppm, which exceed the 0.005 ppm Criterion and the statewide default background level of 0.13 ppm.

Nickel was detected in SS-2015-07 at a concentration of 160 ppm, which exceeds the 100 ppm Criterion and the statewide default background level of 20 ppm.

Phenanthrene was detected in SS-2015-01 at a concentration of 2,200 ppb, SS-2015-02-DUP at a concentration of 4,400 ppb, SS-2015-03 at a concentration of 18,000 ppb, SS-2015-07 at a concentration of 4,600 ppb, SS-2015-09 at a

concentration of 7,300 ppb, and SS-2015-11 at a concentration of 2,500 ppb, which exceed the 2,100 ppb Criterion.

Selenium was detected in SS-2015-03 at a concentration of 16 ppm, SS-2015-06 at a concentration of 0.80 ppm, SS-2015-07 at a concentration of 2.3 ppm, and SS-2015-10 at a concentration of 0.80 ppm, which exceed the 0.40 ppm Criterion and the statewide default background level of 0.41 ppm.

Silver was detected in SS-2015-03 at a concentration of 1.1 ppm, SS-2015-05 at a concentration of 1.2 ppm, and SS-2015-07 at a concentration of 2.3 ppm, which exceed the 0.10 ppm Criterion and the statewide default background level of 0.41 ppm.

Zinc was detected in SS-2015-02 at a concentration of 230 ppm, SS-2015-02-DUP at a concentration of 200 ppm, SS-2015-03 at a concentration of 980 ppm, SS-2015-05 at a concentration of 450 ppm, SS-2015-07 at a concentration of 2,600 ppm, SS-2015-09 at a concentration of 240 ppm, and SS-2015-11 at a concentration of 5,400 ppm, which exceed the 170 ppm Criterion and the statewide default background level of 47 ppm.

***Exceedances above the Soil Residential Direct Contact Criteria:***

These Criteria represent concentrations of hazardous substances in soils at Residential locations considered to be hazardous through dermal contact and ingestion of the soil.

Arsenic was detected in SS-2015-03 at a concentration of 39 ppm, SS-2015-05 at a concentration of 7.9 ppm, SS-2015-07 at a concentration of 22 ppm, SS-2015-09 at a concentration of 10 ppm, SS-2015-10 at a concentration of 11 ppm, and SS-2015-11 at a concentration of 9.4 ppm, which exceed the 7.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Benzo(b)fluoranthene was detected in SS-2015-03 at a concentration of 26,000 ppb, which exceeds the 20,000 ppb Criterion.

Benzo(a)pyrene was detected in SS-2015-03 at a concentration of 17,000 ppb and SS-2015-07 at a concentration of 5,200 ppb, which exceed the 2,000 ppb Criterion.

Lead was detected in SS-2015-03 at a concentration of 1,100 ppm and SS-2015-07 at a concentration of 620 ppm, which exceed the 400 ppm Criterion and the statewide default background level of 21 ppm.

***Exceedances above the Soil Nonresidential Direct Contact Criteria:***

These Criteria represent concentrations of hazardous substances in soils at Nonresidential locations considered to be hazardous through dermal contact and ingestion of the soil.

Arsenic was detected in SS-2015-03 at a concentration of 39 ppm, which exceeds the 37 ppm Criterion and the statewide default background level of 5.8 ppm.

Benzo(a)pyrene was detected in SS-2015-03 at a concentration of 17,000 ppb, which exceeds the 8,000 ppb Criterion.

Lead was detected in SS-2015-03 at a concentration of 1,100 ppm, which exceeds the 900 ppm Criterion and the statewide default background level of 21 ppm.

### **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 sampling task, 11 soil boring samples were collected from 10 separate boring locations during the BFRA. All samples were collected utilizing a hand auger or a Geoprobe® rig with a high density polyethylene lined Macro-Core® sampler from depths ranging from 0 to 12 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 VOCs and potential sampling points within the cores. All soil boring boreholes were properly abandoned following an approved standard operating procedure. This procedure entailed slowly filling the abandoned borehole with bentonite chips to within six inches of the surface then topping off the borehole with immediate surrounding material.

See Figure 4 for a map showing soil boring sample locations. A description of the soil boring locations, lithology, and sample characteristics can be found in Table 3. Table 4 provides a summary of the soil boring sample analytical results that exceed Part 201 Criteria and lists the Criteria exceedances.

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 full extent of the contaminants in the deep soils was not delineated during the BFRA of the Tree Farm property.

***Exceedances above the Soil Residential 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 Drinking Water Criteria.

Antimony was detected in SB-2015-02 at a concentration of 7.8 ppm and SB-2015-05 at a concentration of 13 ppm, which exceed the 4.3 ppm Criterion.

Arsenic was detected in SB-2015-02 at a concentration of 21 ppm, SB-2015-05 at a concentration of 21 ppm, SB-2015-06 at a concentration of 12 ppm, and SB-2015-07 at a concentration of 9.9 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Cadmium was detected in SB-2015-05 at a concentration of 12 ppm, which exceeds the 6.0 ppm Criterion and the statewide default background level of 1.2 ppm.

Chromium (total) was detected in SB-2015-02 at a concentration of 52 ppm and SB-2015-05 at a concentration of 58 ppm, which exceed the 30 ppm Criterion and the statewide default background level of 18 ppm.

Cobalt was detected in SB-2015-02 at a concentration of 9.2 ppm and SB-2015-05 at a concentration of 10 ppm, which exceed the 0.8 ppm Criterion and the statewide default background level of 6.8 ppm.

Iron was detected in SB-2015-02 at a concentration of 87,000 ppm, SB-2015-03 at a concentration of 13,000 ppm, SB-2015-04 at a concentration of 13,000 ppm, SB-2015-05 at a concentration of 41,000 ppm, SB-2015-06 at a concentration of 18,000 ppm, SB-2015-07 at a concentration of 15,000 ppm, and SB-2015-10 at a concentration of 14,000 ppm, which exceed the 4.0 ppm Criterion and the statewide default background level of 0.39 ppm.

Lead was detected in SB-2015-02 at a concentration of 1,200 ppm, SB-2015-05 at a concentration of 940 ppm, and SB-2015-06 at a concentration of 1,900 ppm, which exceeds the 700 ppm Criterion and the statewide default background level of 21 ppm.

Manganese was detected in SB-2015-01 at a concentration of 780 ppm, SB-2015-02 at a concentration of 510 ppm, SB-2015-04 at a concentration of 640 ppm, and SB-2015-05 at a concentration of 620 ppm, which exceed the 1.0 ppm Criterion and the statewide default background level of 440 ppm.

Molybdenum was detected in SB-2015-02 at a concentration of 4.7 ppm, SB-2015-05 at a concentration of 13 ppm, and SB-2015-06 at a concentration of 1.8 ppm, which exceed the 1.5 ppm Criterion.

Silver was detected in SB-2015-05 at a concentration of 39 ppm, which exceeds the 4.5 ppm Criterion and the statewide default background level of 1.0 ppm.

***Exceedances above the Soil Nonresidential 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 Nonresidential Drinking Water Criteria.

Antimony was detected in SB-2015-02 at a concentration of 7.8 ppm and SB-2015-05 at a concentration of 13 ppm, which exceed the 4.3 ppm Criterion.

Arsenic was detected in SB-2015-02 at a concentration of 21 ppm, SB-2015-05 at a concentration of 21 ppm, SB-2015-06 at a concentration of 12 ppm, and SB-2015-07 at a concentration of 9.9 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Cadmium was detected in SB-2015-05 at a concentration of 12 ppm, which exceeds the 6.0 ppm Criterion and the statewide default background level of 1.2 ppm.

Chromium (total) was detected in SB-2015-02 at a concentration of 52 ppm and SB-2015-05 at a concentration of 58 ppm, which exceed the 30 ppm Criterion and the statewide default background level of 18 ppm.

Cobalt was detected in SB-2015-02 at a concentration of 9.2 ppm and SB-2015-05 at a concentration of 10 ppm, which exceed the 2.0 ppm Criterion and the statewide default background level of 6.8 ppm.

Iron was detected in SB-2015-02 at a concentration of 87,000 ppm, SB-2015-03 at a concentration of 13,000 ppm, SB-2015-04 at a concentration of 13,000 ppm, SB-2015-05 at a concentration of 41,000 ppm, SB-2015-06 at a concentration of 18,000 ppm, SB-2015-07 at a concentration of 15,000 ppm, and SB-2015-10 at a concentration of 14,000 ppm, which exceed the 4.0 ppm Criterion and the statewide default background level of 0.39 ppm.

Lead was detected in SB-2015-02 at a concentration of 1,200 ppm, SB-2015-05 at a concentration of 940 ppm, and SB-2015-06 at a concentration of 1,900 ppm, which exceeds the 700 ppm Criterion and the statewide default background level of 21 ppm.

Manganese was detected in SB-2015-01 at a concentration of 780 ppm, SB-2015-02 at a concentration of 510 ppm, SB-2015-04 at a concentration of 640 ppm, and SB-2015-05 at a concentration of 620 ppm, which exceed the 1.0 ppm Criterion and the statewide default background level of 440 ppm.

Molybdenum was detected in SB-2015-02 at a concentration of 4.7 ppm and SB-2015-05 at a concentration of 13 ppm, which exceed the 4.2 ppm Criterion.

Silver was detected in SB-2015-05 at a concentration of 39 ppm, which exceeds the 13 ppm Criterion and the statewide default background level of 1.0 ppm.

***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.

Arsenic was detected in SB-2015-02 at a concentration of 21 ppm, SB-2015-05 at a concentration of 21 ppm, SB-2015-06 at a concentration of 12 ppm, and SB-2015-07 at a concentration of 9.9 ppm, which exceed the 4.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Barium was detected in SB-2015-02 at a concentration of 700 ppm, SB-2015-05 at a concentration of 600 ppm, and SB-2015-06 at a concentration of 440 ppm, which exceeds the 440 ppm Criterion and the statewide default background level of 1.2 ppm.

Cadmium was detected in SB-2015-02 at a concentration of 5.3 ppm, SB-2015-05 at a concentration of 12 ppm, which exceed the 3.6 ppm Criterion and the statewide default background level of 1.2 ppm.

Chromium (total) was detected in SB-2015-02 at a concentration of 52 ppm, SB-2015-05 at a concentration of 58 ppm, and SB-2015-06 at a concentration of 23 ppm, which exceed the 3.3 ppm Criterion and the statewide default background level of 18 ppm.

Cobalt was detected in SB-2015-02 at a concentration of 9.2 ppm and SB-2015-05 at a concentration of 10 ppm, which exceed the 2.0 ppm Criterion and the statewide default background level of 6.8 ppm.

Copper was detected in SB-2015-02 at a concentration of 200 ppm, SB-2015-05 at a concentration of 1,500 ppm, and SB-2015-06 at a concentration of 250 ppm, which exceed the 75 ppm Criterion and the statewide default background level of 32 ppm.

Cyanide was detected in SB-2015-05 at a concentration of 1.2 ppm, SB-2015-06 at a concentration of 0.40 ppm, and SB-2015-10 at a concentration of 1.8 ppm which exceed the 0.10 ppm Criterion and the statewide default background level of 0.39 ppm.

Fluoranthene was detected in SB-2015-05 at a concentration of 45,000 ppb and SB-2015-06 at a concentration of 8,100 ppb, which exceed the 5,500 ppb Criterion.

Manganese was detected in SB-2015-01 at a concentration of 780 ppm, SB-2015-02 at a concentration of 510 ppm, SB-2015-04 at a concentration of 640 ppm, and SB-2015-05 at a concentration of 620 ppm, which exceed the 56 ppm Criterion and the statewide default background level of 440 ppm.

Mercury was detected in SB-2015-02 at a concentration of 0.20 ppm, SB-2015-05 at a concentration of 0.50 ppm, and SB-2015-06 at a concentration of 0.20 ppm, which exceed the 0.005 ppm Criterion and the statewide default background level of 0.13 ppm.

Molybdenum was detected in SB-2015-02 at a concentration of 4.7 ppm and SB-2015-05 at a concentration of 13 ppm, which exceed the 4.2 ppm Criterion.

Naphthalene was detected in SB-2015-05 at a concentration of 3,000 ppb, which exceeds the 730 ppb Criterion.

Phenanthrene was detected in SB-2015-05 at a concentration of 33,000 ppb and SB-2015-06 at a concentration of 4,100 ppb, which exceed the 2,100 ppb Criterion.

Silver was detected in SB-2015-05 at a concentration of 39 ppm, which exceeds the 0.10 ppm Criterion and the statewide default background level of 1.0 ppm.

Zinc was detected in SB-2015-02 at a concentration of 2,100 ppm, SB-2015-05 at a concentration of 1,000 ppm, and SB-2015-10 at a concentration of 340 ppm, which exceed the 170 ppm Criterion and the statewide default background level of 47 ppm.

***Exceedances above the Soil Residential Direct Contact Criteria:***

These Criteria represent concentrations of hazardous substances in soils at Residential locations considered to be hazardous through dermal contact and ingestion of the soil.

Arsenic was detected in SB-2015-02 at a concentration of 21 ppm, SB-2015-05 at a concentration of 21 ppm, SB-2015-06 at a concentration of 12 ppm, and SB-2015-07 at a concentration of 9.9 ppm, which exceed the 7.6 ppm Criterion and the statewide default background level of 5.8 ppm.

Benzo(b)fluoranthene was detected in SB-2015-05 at a concentration of 23,000 ppb, which exceeds the 20,000 ppb Criterion.

Benzo(a)pyrene was detected in SB-2015-05 at a concentration of 17,000 ppb, which exceeds the 2,000 ppb Criterion.

Lead was detected in SB-2015-02 at a concentration of 1,200 ppm, SB-2015-05 at a concentration of 940 ppm, and SB-2015-06 at a concentration of 1,900 ppm, which exceed the 400 ppm Criterion and the statewide default background level of 21 ppm.

***Exceedances above the Soil Nonresidential Direct Contact Criteria:***

These Criteria represent concentrations of hazardous substances in soils at Nonresidential locations considered to be hazardous through dermal contact and ingestion of the soil.

Benzo(a)pyrene was detected in SB-2015-05 at a concentration of 17,000 ppb, which exceeds the 8,000 ppb Criterion.

Lead was detected in SB-2015-02 at a concentration of 1,200 ppm, SB-2015-05 at a concentration of 940 ppm, and SB-2015-06 at a concentration of 1,900 ppm, which exceed the 900 ppm Criterion and the statewide default background level of 21 ppm.

**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, to determine if methane was present in groundwater, 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 sampling task, 5 groundwater samples (plus 1 duplicate sample) were collected for regular organic and inorganic analyses from 13 temporary monitoring wells installed using a Geoprobe® rig according to the procedures outlined in the work plan. In addition, 11 groundwater samples (plus 1 duplicate sample) were collected from the wells and analyzed for methane.

The temporary monitoring wells were installed by driving small diameter well points directly into the aquifer after pre-probing the hole with a macro-core sampler. The temporary monitoring wells were constructed of one-inch polyvinyl chloride (PVC) riser pipe with a one-foot section of one-inch PVC #10 slot well screen. According to the work plan, the well screens were set at about 5 feet below ground level in zones where groundwater was first encountered and any visible waste was noted. Additional nested wells were set at deeper depths. The deeper well screens were set from 7 to 24 feet below ground level and along the perimeter of the Property to determine if methane is migrating onto the Property. 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.



Upon installation, the wells were purged of heavy sediment and a steady low-flow purge rate of less than 500 milliliters/minute was established. The wells were purged using dedicated low density polyethylene (LDPE) and C-FLEX® tubing and a peristaltic pump. During the low-flow purging, temperature, pH, conductivity, oxidation reduction potential, and total dissolved solids were measured at continuing intervals until these measurements stabilized. Once the listed groundwater parameters had stabilized or after the well purged dry and recharged, the well was sampled using low-flow techniques as outlined in the work plan. If the wells failed to recharge, no groundwater samples were collected. Temporary monitoring well samples were collected utilizing LDPE and C-FLEX® tubing and a peristaltic pump. Table 6 provides a summary of the temporary monitoring well sample analytical results that exceed Part 201 Criteria and lists the Criteria exceedances. In addition to the regular analyses, groundwater samples were collected for methane analysis, if possible. The methane results for the temporary monitoring wells are also listed below and in Table 6.

After collecting groundwater samples, the temporary monitoring wells were removed and the boreholes were properly abandoned following an approved standard operating procedure. This procedure entailed slowly filling the abandoned borehole with bentonite chips to within six inches of the surface then topping off the borehole with immediate surrounding material.

Analysis of the groundwater samples collected during the BFRA detected the presence of levels 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 delineated during the BFRA of the Tree Farm property.

***Exceedances above the Residential Drinking Water Criteria:***

These Criteria represent concentrations of hazardous substances in groundwater that pose a risk to Residential drinking water.

Arsenic was detected in TMW-03 (15-16') at a concentration of 14 micrograms per liter (ug/L) and TMW-10 (6.5-7.5') at a concentration of 11 ug/L, which exceed the 10 ug/L Criterion.

Iron was detected in TMW-02 (13-14') at a concentration of 7,600 ug/L, TMW-02 (13-14')-DUP at a concentration of 7,600 ug/L, TMW-03 (15-16') at a concentration of 6,200 ug/L, TMW-05 (23-24') at a concentration of 9,900 ug/L, and TMW-10 (6.5-7.5') at a concentration of 11,000 ug/L, which exceeds the 300 ug/L Criterion.

Lead was detected in TMW-05 (23-24') at a concentration of 5.7 ug/L, which exceeds the 4.0 ug/L Criterion.

Manganese was detected in TMW-01 (10-11') at a concentration of 160 ug/L, TMW-02 (13-14') at a concentration of 200 ug/L, TMW-02 (13-14')-DUP at a concentration of 230 ug/L, TMW-03 (15-16') at a concentration of 170 ug/L, TMW-05 (23-24') at a concentration of 290 ug/L, and TMW-10 (6.5-7.5') at a concentration of 440 ug/L, which exceed the 50 ug/L Criterion.

Vanadium was detected in TMW-02 (13-14') at a concentration of 5.7 ug/L, TMW-02 (13-14')-DUP at a concentration of 5.3 ug/L, TMW-03 (15-16') at a concentration of 5.8 ug/L, and TMW-05 (23-24') at a concentration of 11 ug/L, which exceed the 4.5 ug/L Criterion.

***Exceedances above the Nonresidential Drinking Water Criteria:***

These Criteria represent concentrations of hazardous substances in groundwater that pose a risk to Nonresidential drinking water.

Arsenic was detected in TMW-03 (15-16') at a concentration of 14 ug/L and TMW-10 (6.5-7.5') at a concentration of 11 ug/L, which exceed the 10 ug/L Criterion.

Iron was detected in TMW-02 (13-14') at a concentration of 7,600 ug/L, TMW-02 (13-14')-DUP at a concentration of 7,600 ug/L, TMW-03 (15-16') at a concentration of 6,200 ug/L, TMW-05 (23-24') at a concentration of 9,900 ug/L, and TMW-10 (6.5-7.5') at a concentration of 11,000 ug/L, which exceeds the 300 ug/L Criterion.

Lead was detected in TMW-05 (23-24') at a concentration of 5.7 ug/L, which exceeds the 4.0 ug/L Criterion.

Manganese was detected in TMW-01 (10-11') at a concentration of 160 ug/L, TMW-02 (13-14') at a concentration of 200 ug/L, TMW-02 (13-14')-DUP at a concentration of 230 ug/L, TMW-03 (15-16') at a concentration of 170 ug/L, TMW-05 (23-24') at a concentration of 290 ug/L, and TMW-10 (6.5-7.5') at a concentration of 440 ug/L, which exceed the 50 ug/L Criterion.

### ***Exceedances above the Groundwater Surface Water Interface Criteria:***

These Criteria represent concentrations of hazardous substances in groundwater that pose a risk to surface water through migration of contaminated groundwater to surface water.

Arsenic was detected in TMW-03 (15-16') at a concentration of 14 ug/L and TMW-10 (6.5-7.5') at a concentration of 11 ug/L, which exceed the 10 ug/L Criterion.

Copper was detected in TMW-01 (10-11') at a concentration of 33 ug/L, TMW-03 (15-16') at a concentration of 14 ug/L, and TMW-05 (23-24') at a concentration of 14 ug/L, which exceed the 13 ug/L Criterion.

4-4'-DDT was detected in TMW-05 (23-24') at a concentration of 0.039 ug/L, which exceeds the 0.02 ug/L Criterion.

Listed below are the methane results for the groundwater samples collected from the temporary monitoring wells that produced sufficient groundwater volume to be sampled.

<b>Groundwater Samples</b>	<b>Methane</b>
TMW-01 (6-7')	21 ug/L
TMW-01 (10-11')	25 ug/L
TMW-02 (13-14')	27 ug/L
TMW-02 (13-14')-DUP	15 ug/L
TMW-03 (15-16')	16 ug/L
TMW-04 (5-6')	100 ug/L
TMW-05 (23-24')	24 ug/L
TMW-06 (20-21')	18 ug/L
TMW-07 (17-18')	19 ug/L
TMW-08 (19-20')	ND
TMW-09 (12-13')	6,200 ug/L
TMW-10 (6.5-7.5')	8,300 ug/L

### **Soil Gas Samples**

The intent of the soil gas sampling was to evaluate the vapor intrusion exposure pathway in terms of methane generated from the buried waste and trees and the nearby landfills that could potentially migrate into future buildings if constructed on the Property and to determine any potential threats to future users, workers, or nearby residential populations. A total of 19 soil gas samples were collected from 10 soil vapor points and 9 temporary monitoring wells (head space samples). The soil vapor monitoring points were constructed of a 1-foot length of 1-inch diameter, #10 slotted PVC screen and 1-inch

diameter PVC riser pipe, similar to the temporary monitoring wells. Table 7 contains the Soil Gas Sample Descriptions and Data Summary. See Figure 6 for the Soil Gas Sample Locations map.

The results for the soil gas samples collected from both the soil vapor points and the temporary monitoring well head space are listed below:

<b>Soil Vapor Samples</b>	<b>Methane</b>
SGP-01(3-4')	Non Detect (ND)
SGP-02 (2.5-3.5')	150 parts per million by volume (ppmv)
SGP-03 (4.5-5.5')	ND
SGP-04 (3-4')	ND
SGP-05 (5-6')	ND
SGP-06 (6-7')	ND
SGP-07 (4-5')	ND
SGP-08 (9-10')	ND
SGP-09 (3.5-4.5')	35,000 ppmv
SGP-10 (2.5-3.5')	210,000 ppmv
TMW-01 (6-7')	18 ppmv
TMW-01 (10-11')	No Vapor Sample Collected
TMW-02 (4.5-5.5')	No Vapor Sample Collected
TMW-02 (13-14')	ND
TMW-03 (15-16')	70 ppmv
TMW-04 (5-6')	ND
TMW-04 (6-7')	No Vapor Sample Collected
TMW-05 (23-24')	ND
TMW-06 (20-21')	ND
TMW-07 (17-18')	ND
TMW-08 (19-20')	ND
TMW-09 (12-13')	7,800 ppmv
TMW-10 (6.5-7.5')	No Vapor Sample Collected

The Vapor Intrusion Indoor Air Screening Level for methane is 12,500 ppmv. Methane was detected in two of the soil vapor samples at concentrations that exceed the Vapor Intrusion Indoor Air Screening Level as noted in the shaded cells above.

After collecting the soil gas samples, the soil gas points and the temporary monitoring wells were removed and the boreholes were properly abandoned following an approved standard operating procedure. This procedure entailed slowly filling the abandoned borehole with bentonite chips to within six inches of the surface then topping off the borehole with immediate surrounding material.

## **Surface Water Samples**

The intent of the surface water sampling was to identify potential contamination in the surface water, to determine whether contaminants had migrated from the Property into the Honeywell Ditch and/or surface drainage area on the Property; and to determine potential health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or resources associated with the surface water in the area of the Property. To accomplish this sampling task, two surface water samples (plus one duplicate sample) were collected from a discharge pipe flowing into the Honeywell Ditch and the surface drainage, between the two fill areas, that flows into the Honeywell Ditch, according to the procedures outlined in the work plan.

A background surface water sample was not collected from the Honeywell Ditch, upstream of the fill areas on the Tree Farm property. SW-2015-01 was collected from the water flowing out of a 2-foot diameter, clay, discharge pipe located along the north bank of the Honeywell Ditch along the southern boundary of the Tree Farm property. SW-2015-02 and SW-2015-02-DUP were collected from the surface drainage located between the two fill areas that flows into the Honeywell Ditch. Surface water sample locations are shown in Figure 7.

Sample SW-2015-01 was collected from the water flowing out of the discharge pipe, while SW-2015-02 and SW-2015-02-DUP were collected by completely immersing the sample bottles into the water in the drainage ditch. The metals analysis samples were not field filtered, and all inorganic and volatile samples were properly preserved and placed on ice in the sampling coolers. Each water sample was collected before the sediment sample at each location to minimize disturbing the water quality. During sampling, the temperature, pH, conductivity, and total dissolved solids were measured. A description of the surface water sample locations and sample characteristics are found in Table 8.

The laboratory results for surface water samples collected during the BFRA were compared to three of Part 201 Criteria for groundwater, specifically the Residential Drinking Water Criteria, Nonresidential Drinking Water Criteria, and Groundwater Surface Water Interface (GSI) Criteria. While these criteria are not technically applicable to surface water, they can indicate a potential risk. Table 9 provides a summary of the surface water sample analytical results. Shaded cells in the table indicate those screening levels exceeded by the sample concentrations. Only iron and manganese were detected in the surface water samples at concentrations exceeding the Residential Drinking Water Criteria and Nonresidential Drinking Water Criteria. It should be noted that the concentrations only exceeded the aesthetic drinking water values and not the health-based drinking water values. The full extent of any possible contaminants in the surface water was not delineated during the BFRA of the Tree Farm property.

## **Sediment Samples**

The intent of the sediment sampling was to identify potential contamination in the sediment, to determine whether contaminants had migrated from the Property into the Honeywell Ditch and/or surface drainage area on the Property; and to determine potential health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or resources associated with the sediments in the area of the Property. To accomplish this sampling task, two sediment samples were collected, one in the Honeywell Ditch at the discharge pipe and the other at the surface drainage between the two fill areas. Samples were collected according to the procedures outlined in the work plan.

A background sediment sample was not collected from the Honeywell Ditch, upstream of the fill areas or the drainage pipe on the Tree Farm property. SD-2015-01 was collected at the base of the discharge pipe located along the north bank of the Honeywell Ditch that flows from the Tree Farm property. SD-2105-02 was collected from the surface drainage between the two fill areas on the Property. Sediment sample locations are shown in Figure 7.

Field staff collected samples with a 2-inch diameter, stainless steel, sediment core or a stainless steel trowel. Sediment sample SD-2015-01 was collected with a trowel, while sediment sample SD-2015-02 was collected with a sediment core. Samples were collected in accordance with procedures described in the work plan for the Tree Farm property. A description of the sediment sample locations and sample characteristics are found in Table 10.

Analysis of the sediment samples collected during the BFRA detected the presence of one inorganic analyte and three pesticides compounds at concentrations exceeding Part 201 Sediment Screening Levels. The inorganic analyte, arsenic, was detected in sediment sample SD-2015-01 at a concentration of 6.0 ppm. The three pesticides, 4-4'-DDD, 4-4'-DDE, and 4-4'-DDT, were detected in sediment samples SD-2015-02 and SD-2015-02-DUP. Since the MDEQ has not yet established generic Sediment Cleanup Criteria, only screening values are used in this evaluation. Table 11 provides a summary of the sediment sample analytical results that exceeded Part 201 Sediment Screening Levels or Part 201 Soil Criteria (GSI Protection and Direct Contact used as screening levels). Shaded cells in the table indicate those screening levels exceeded by the sample concentrations.

The MDEQ's sediments characterization guidance noted above bases some of its screening levels on a U.S. EPA guide for assessing sediment contamination, which includes recommendations for the use of sediment background values. That guide states that exceedances of sediment quality guidelines provide evidence for contamination, but "it should be recognized that all or a portion of the exceedances may be associated with elevated background concentrations."

Both sediment samples contained hazardous substances exceeding Part 201 Sediment Screening Levels or Part 201 Soil Criteria used as screening levels. However, hazardous substance concentrations exceeding screening levels are not considered Cleanup Criteria and such results can only be used in a subjective manner. Screening level exceedances cannot be used to determine facility status, for example. Nevertheless, three pesticide compounds and the inorganic analyte, arsenic, exceeded the screening levels as follows:

- Arsenic detected in SD-2015-01 above screening levels at a concentration of 6.0 ppm.
- 4-4'-DDD detected in SD-2015-02 and SD-2015-02-DUP above screening levels at a concentration of 24 ppb and 26 ppb, respectively.
- 4-4'-DDE detected in SD-2015-02 and SD-2015-02-DUP above screening levels at a concentration of 27 ppb and 29 ppb, respectively.
- 4-4'-DDT detected in SD-2015-02 and SD-2015-02-DUP above screening levels at a concentration of 52 ppb and 50 ppb, respectively.

## DISCUSSION

MDEQ staff conducted a BFRA of the Property in accordance with the CA with the U.S. EPA and according to the approved work plan. The BFRA included file and information searches, reconnaissance inspections of the Property, the collection and analyses of surficial soil, subsurface soil, groundwater, soil gas, surface water and sediment samples, GPS data collection of sample locations and Property features, and the collection of site feature photographs, data evaluation, and the compilation of all this data into this report.

Analysis of the samples collected during the BFRA of the Property detected the presence of antimony, arsenic, barium, benzo(b)fluoranthene, benzo(a)pyrene, cadmium, chromium, cobalt, copper, cyanide, 4-4'-DDD, 4-4'-DDE, 4-4'-DDT, fluoranthene, iron, lead, manganese, mercury, methane, molybdenum, naphthalene, nickel, phenanthrene, selenium, silver, tetrachloroethylene, vanadium, and zinc at concentrations greater than the Generic Residential Cleanup Criteria or Screening Levels. Because these contaminants were detected at concentrations in excess of Generic Residential Cleanup Criteria, the Property does meet the definition of a facility under Part 201.

The contaminants of concern (COCs) in the surficial soils on the Property include: antimony, arsenic, benzo(b)fluoranthene, benzo(a)pyrene, cadmium, chromium (total), cobalt, cyanide, fluoranthene, iron, lead, manganese, mercury, molybdenum, nickel, phenanthrene, selenium, silver, tetrachloroethylene, and zinc. Arsenic was detected in six of the surficial soil samples at concentrations above Soil Residential Direct Contact Criterion. The concentrations of arsenic range from 7.9 to 39 ppm, with the highest concentration detected in SS-2015-03. Benzo(b)fluoranthene and benzo(a)pyrene were detected in SS-2015-03 at a concentration which exceed Soil Residential Direct Contact Criteria. Lead was detected in SS-2015-03 and SS-2015-07 at concentrations which exceed Soil Residential Direct Contact Criterion. All the remaining COCs were detected at concentrations that exceeded Groundwater Protection Criteria.

The COCs in the deep soils on the Property include: antimony, arsenic, barium, benzo(b)fluoranthene, benzo(a)pyrene, cadmium, chromium (total), cobalt, copper, cyanide, fluoranthene, iron, lead, manganese, mercury, molybdenum, naphthalene, phenanthrene, silver, and zinc. Arsenic was detected in four of the soil boring samples above Soil Residential Direct Contact Criterion. The concentrations of arsenic range from 9.9 to 22 ppm. Benzo(b)fluoranthene and benzo(a)pyrene were detected in SB-2015-05 at a concentration exceeding Soil Residential Direct Contact Criteria. Lead was detected in three of the soil boring samples at concentrations exceeding Soil Residential Direct Contact Criterion. The concentrations of lead range from 940 to 1,900 ppm, with the highest concentration detected in SB-2015-06. All the remaining COCs were detected at concentrations that exceeded Groundwater Protection Criteria.



The COCs in the groundwater on the Property include: arsenic, copper, 4-4'-DDT, iron, lead, manganese, and vanadium. Arsenic was detected in two of the temporary monitoring wells at concentrations that exceed Residential Drinking Water Criteria: TMW-03 (15-16') at 14 ug/L and TMW-10 (6.5-7.5') at 11 ug/L. Iron was detected in four of the temporary monitoring wells at concentrations that exceed Residential Drinking Water Criteria: TMW-02 (13-14') at 7,600 ug/L, TMW-02 (13-14')-DUP at 7,600 ug/L, TMW-03 (15-16') at 6,200 ug/L, TMW-05 (23-24') at 9,900 ug/L, and TMW-10 (6.5-7.5') at 11,000 ug/L. Lead was detected at a concentration that exceeds Residential Drinking Water Criteria in TMW-05 (23-24') at 5.7 ug/L. Manganese was detected in five of the of the temporary monitoring wells at concentrations that exceed Residential Drinking Water Criteria: TMW-01 (10-11') at 160 ug/L, TMW-02 (13-14') at 200 ug/L, TMW-02 (13-14')-DUP at 230 ug/L, TMW-03 (15-16') at 170 ug/L, TMW-05 (23-24') at 290 ug/L, and TMW-10 (6.5-7.5') at 440 ug/L. Vanadium was detected in four of the temporary monitoring well samples at concentrations that exceed Residential Drinking Water Criteria: TMW-02 (13-14') at 5.7 ug/L, TMW-02 (13-14')-DUP at 5.3 ug/L, TMW-03 (15-16') at 5.8 ug/L, and TMW-05 (23-24') at 11 ug/L.

Methane was detected in all but one of the temporary monitoring wells sampled and the concentrations ranged from 16 to 8,300 ug/L; with the two highest concentrations detected in TMW-09 (12-13') at 6,200 ug/L and TMW-10 (6.5-7.5') at 8,300 ug/L. TMW-09 and TMW-10 were located in the fill area near the southwest corner of the Property.

Methane was detected in two of the soil vapor samples at concentrations that exceed the Vapor Intrusion Indoor Air Screening Level for methane, which is 12,500 ppmv (or 1.25% by volume - which is derived utilizing 25% of the lower explosive level for methane). The concentrations of methane ranged from 35,000 to 210,000 ppmv, with the concentrations detected in SGP-09 (35,000 ppmv) and SGP-10 at (210,000 ppmv). These two samples, SGP-09 and SGP-10, were located in the fill area near the southwest corner of the Property, adjacent to temporary monitoring wells TMW-09 and TMW-10.

The contaminants in the surface water samples on the Property include: iron and manganese at concentrations above Residential Drinking Water Criteria. While these criteria are not technically applicable to surface water, it can indicate a potential risk. The contaminants in the sediment samples on the Property include: arsenic, 4-4'-DDD, 4-4'-DDE, and 4-4'-DDT. The concentrations exceeded Part 201 Sediment Screening Levels or Part 201 Soil Criteria used as screening levels.

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

- Action should be taken to abate the potential threat caused by the presence of contaminants exceeding Residential Cleanup Criteria in the soils by mitigation of these contaminants or restricting access to the contaminated areas. Arsenic, benzo(b)fluoranthene, benzo(a)pyrene, and lead were detected in both the surficial soil and soil boring samples at concentrations which exceed the Residential Direct Contact Criteria. The extent of these contaminants should be determined and proper action should be taken to mitigate the soils. In some cases, further evaluation of certain inorganic analytes found at levels above default background levels may show that some of the inorganic analytes may be naturally occurring at those levels, thereby eliminating the need for mitigation.
- Contaminants were detected in the shallow and deep soil samples that exceeded both the Drinking Water Protection Criteria and the GSI Protection Criteria. Future redevelopment activities should be conducted in a manner that will not cause additional or adverse leaching of the contaminants in the soils into the groundwater.
- Because of contaminants detected in the shallow groundwater at levels exceeding drinking water standards, the shallow groundwater at the Property should not be used for drinking water purposes; redevelopment activities should not exacerbate contaminated groundwater migration.
- Because methane was detected at levels exceeding Vapor Intrusion Indoor Air Screening Level in the soil vapor samples collected in the fill area, consideration for the construction of buildings over and adjacent to tree disposal areas may require constructed vapor mitigation systems, or removal of the tree waste.
- A more detailed study of the background levels of naturally occurring inorganic analytes in the area may be conducted to determine whether these levels on the Property are of concern and if a site-specific background should be substituted for the calculated Cleanup Criteria.
- The contaminants of concern 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 or nonresidential. A non-labile developer is not required to implement a cleanup to achieve the appropriate cleanup Criteria. However, a non-labile 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, RRD, Southeast Michigan District Office at 586-753-3700.

## BIBLIOGRAPHY

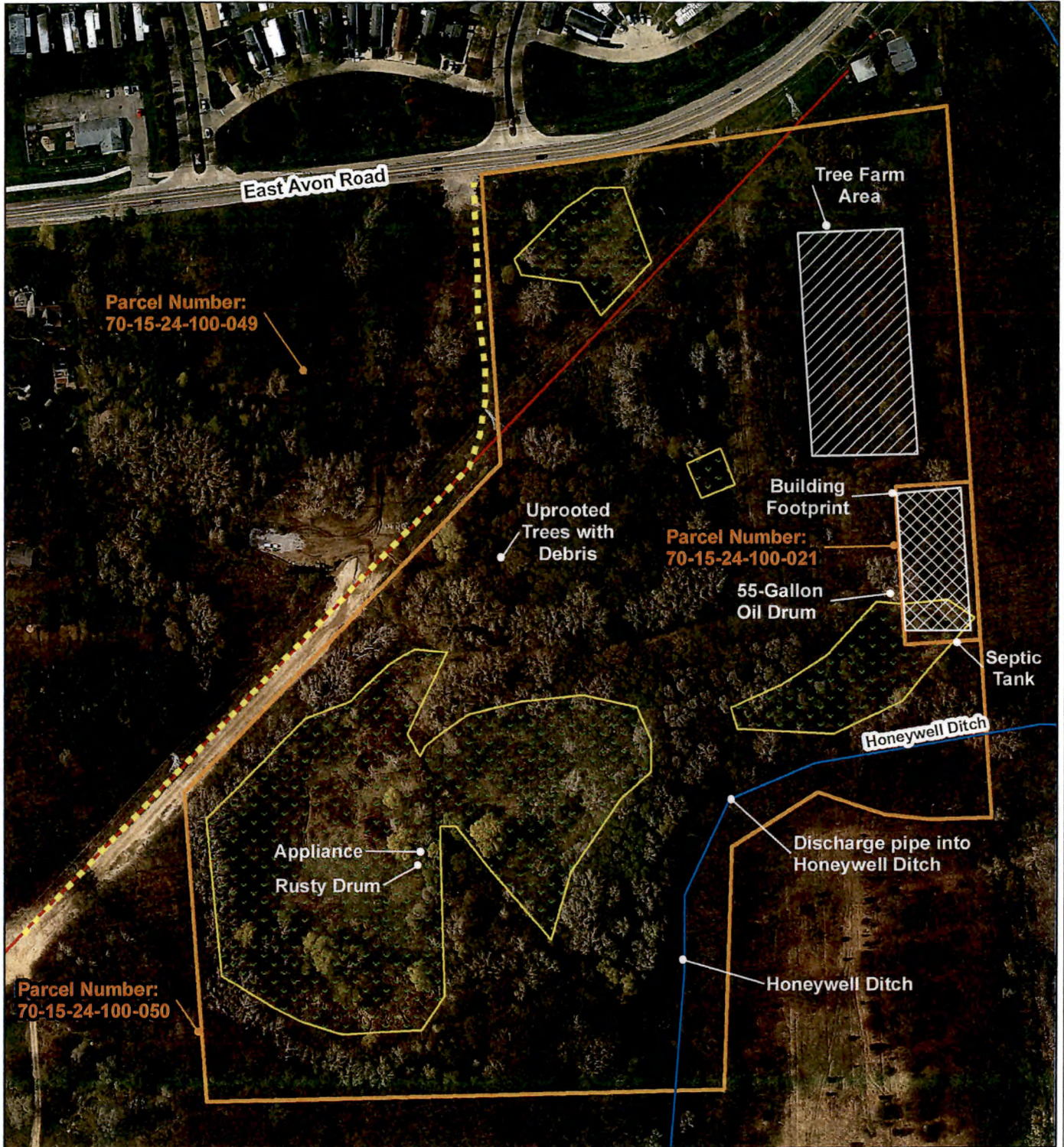
1. Environmental Data Resources Inc. (EDR), Certified Sanborn® Map Report, Tree Farm, 1406 East Avon Road, Rochester Hills, MI 48813, March 15, 2011.
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**FIGURES**



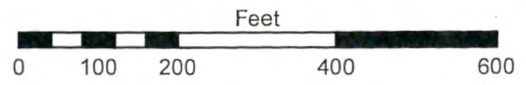
FIGURE 2  
PROPERTY FEATURES



Tree Farm  
1406 East Avon Road  
Rochester Hills, MI 48307  
T3N R11E Section 24  
Oakland County  
MIB000000196

**Legend**

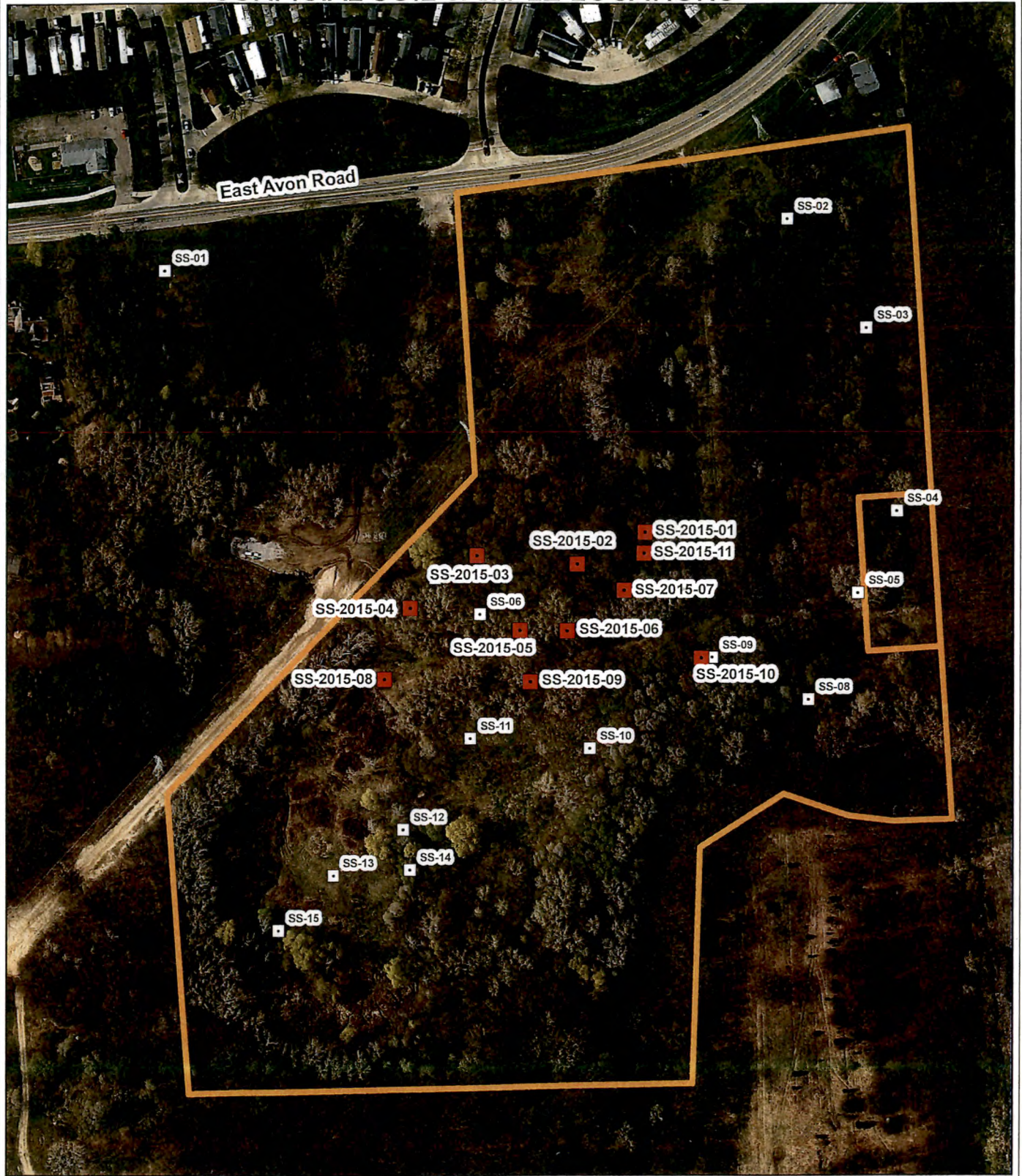
- Buried Pipeline
- Power Line
- Historical Areas of Surface Disturbance
- Property Boundary



Compiled by: Leni L. Steiner-Zehender  
December 2015  
Projected Coordinate System:  
Michigan GeoRef, NAD-83, meters  
Completed with ESRI ArcMap 10.3.1  
Source: Michigan Geographic Data Library  
and MSU RS&GIS 2014 Aerial



FIGURE 3  
SURFICIAL SOIL SAMPLE LOCATIONS



Tree Farm  
1406 East Avon Road  
Rochester Hills, MI 48307  
T3N R11E Section 24  
Oakland County  
MIB000000196

**Legend**

- SS-01 - Surficial Soil 01  
2011 BFRA
- SS-2015-01 - Surficial Soil 01
- ▭ Property Boundary



Compiled by: Leni L. Steiner-Zehender  
December 2015  
Projected Coordinate System:  
Michigan GeoRef, NAD-83, meters  
Completed with ESRI ArcMap 10.3.1  
Source: Michigan Geographic Data Library  
and MSU RS&GIS 2014 Aerial



**FIGURE 4**  
SOIL BORING SAMPLE LOCATIONS



Tree Farm  
1406 East Avon Road  
Rochester Hills, MI 48307  
T3N R11E Section 24  
Oakland County  
MIB000000196

**Legend**

- SB-01 - Soil Boring 01  
2011 BFRAs
- SB-2015-01 - Soil Boring 01
- ▭ Property Boundary



Compiled by: Leri L. Steiner-Zehender  
December 2015  
Projected Coordinate System:  
Michigan Georefer, NAD-83, meters  
Completed with ESRI ArcMap 10.3.1  
Source: Michigan Geographic Data Library  
and MSU RS&GIS 2014 Aerial



FIGURE 5  
TEMPORARY MONITORING WELL LOCATIONS



Tree Farm  
1406 East Avon Road  
Rochester Hills, MI 48307  
T3N R11E Section 24  
Oakland County  
MIB000000196

**Legend**

△ TMW-01 - Temporary Monitoring Well 01

▭ Property Boundary



Compiled by: Leni L. Steiner-Zehender  
December 2015  
Projected Coordinate System:  
Michigan GeoRef, NAD-83, meters  
Completed with ESRI ArcMap 10.3.1  
Source: Michigan Geographic Data Library  
and MSU RS&GIS 2014 Aerial

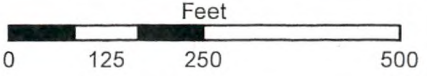
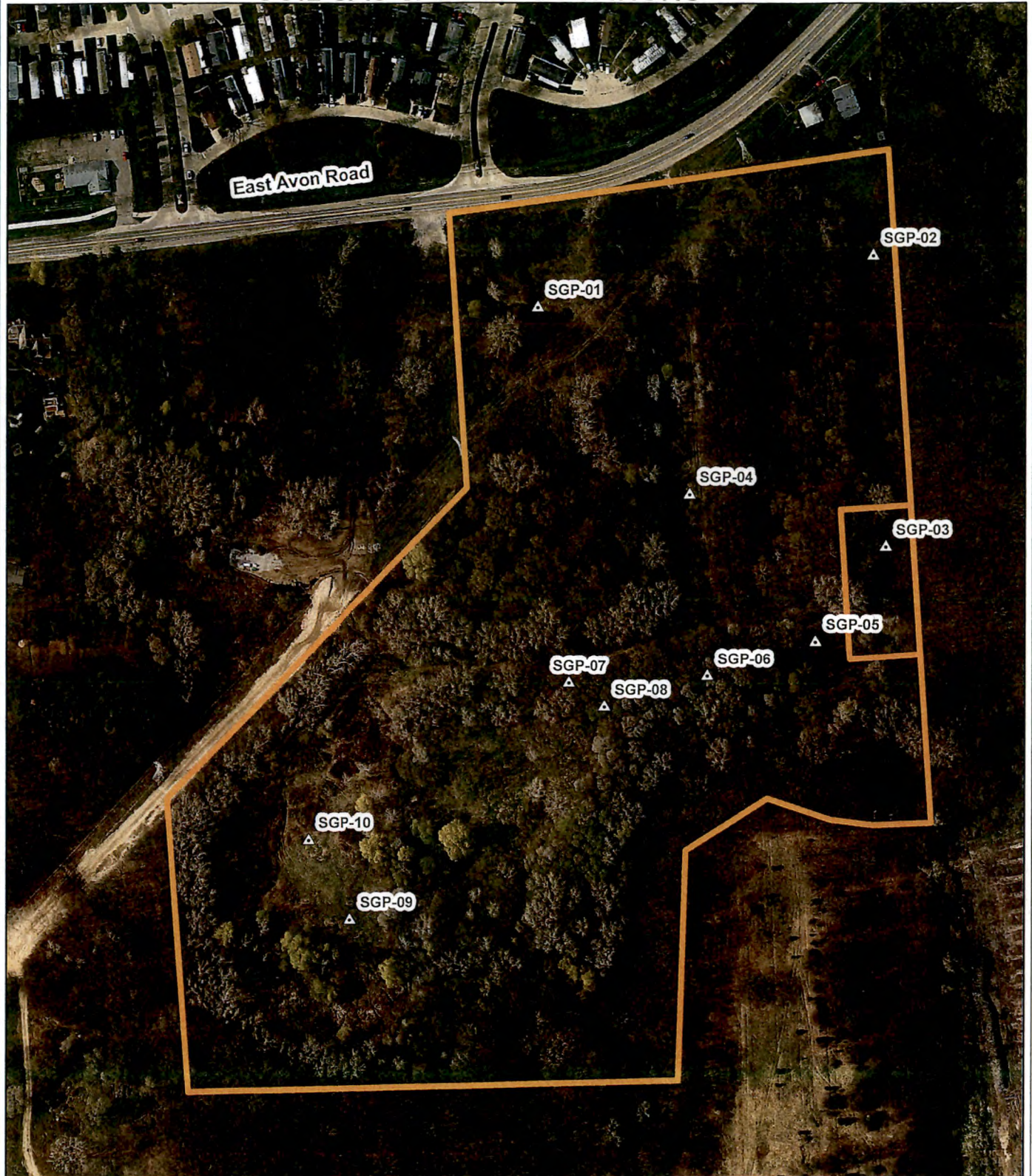




FIGURE 6  
SOIL GAS SAMPLE LOCATIONS



Tree Farm  
1406 East Avon Road  
Rochester Hills, MI 48307  
T3N R11E Section 24  
Oakland County  
MIB000000196

**Legend**

△ SGP-01 - Soil Gas Probe 01

▭ Property Boundary

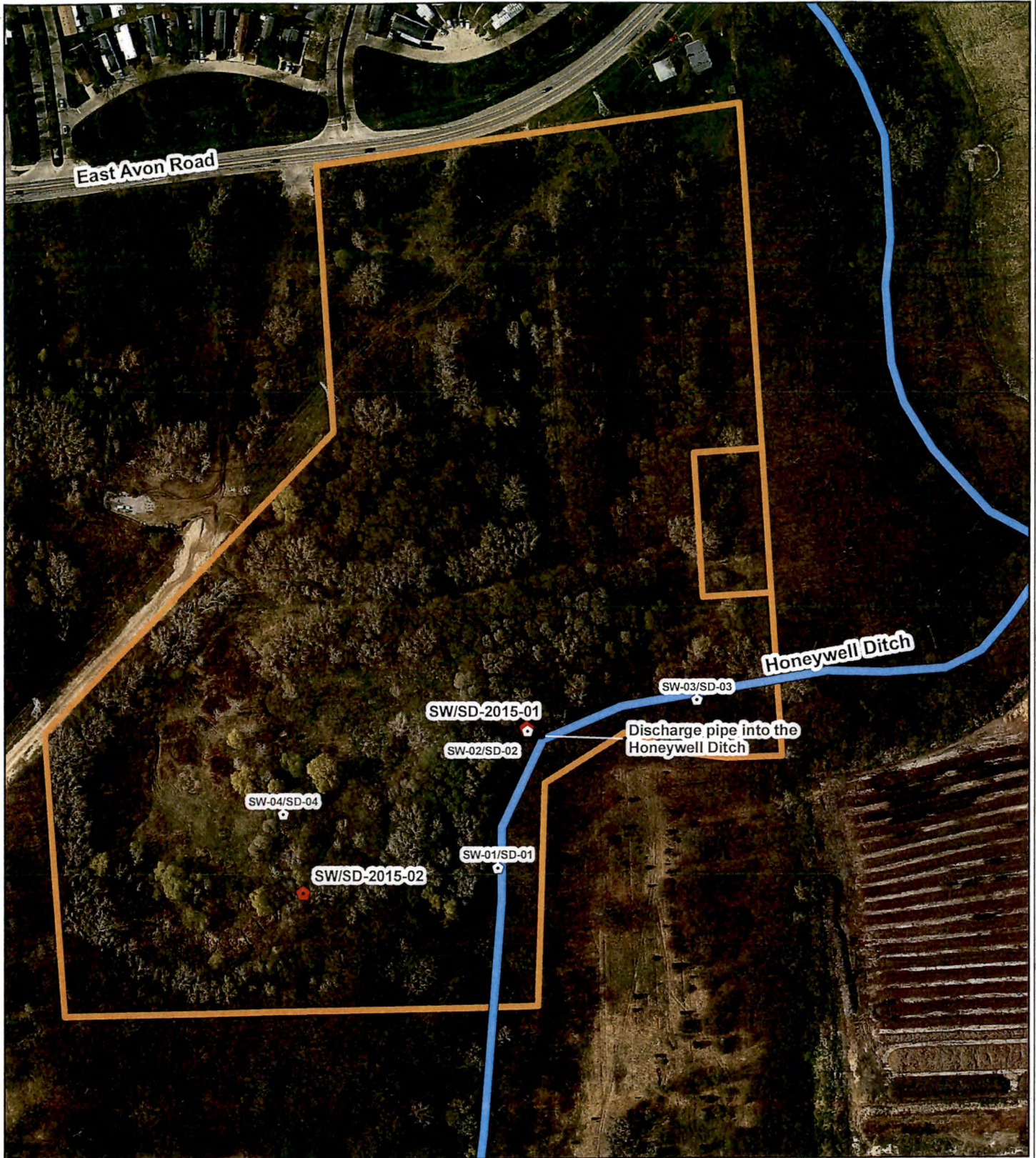
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December 2015  
Projected Coordinate System:  
Michigan GeoRef, NAD-83, meters  
Completed with ESRI ArcMap 10.3.1  
Source: Michigan Geographic Data Library  
and MSU RS&GIS 2014 Aerial

Feet

0 100 200 400 600



**FIGURE 7**  
**SURFACE WATER AND SEDIMENT SAMPLE LOCATIONS**



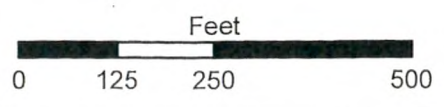
Tree Farm  
 1406 East Avon Road  
 Rochester Hills, MI 48307  
 T3N R11E Section 24  
 Oakland County  
 MIB000000196



**Legend**

- ⬠ SW/SD-01 - Surface Water/Sediment 01  
2011 BFRA
- ◆ SW/SD-2015-01 - Surface Water/Sediment 01
- Honeywell Ditch
- ▭ Property Boundary

Compiled by: Leni L. Steiner-Zehender  
 December 2015  
 Projected Coordinate System:  
 Michigan GeoRef, NAD-83, meters  
 Completed with ESRI ArcMap 10.3.1  
 Source: Michigan Geographic Data Library  
 and MSU RS&GIS 2014 Aerial







## TABLES

**TABLE 1**  
**SURFICIAL SOIL SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH (in.)	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing			
SS-2015-01	737084.88	239120.46	0-0.5	Roots, topsoil, moss.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 0-6 in.
			0.5-6	Dry, brown, fine sand with some silt, fine gravel and roots.	
			6	Refusal/roots.	
SS-2015-02/ SS-2015-02 DUP	737050.18	239103.95	0-5	Moist, brown, fine sand with silt, trace gravel and fine roots.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 0-5 in.
SS-2015-03/ SS-2015-03 MS/MSD	736998.56	239108.49	0-10	Moist, brown, fine sand with some silt, fine roots and gravel; and some debris (slag, concrete, tar roofing).	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-10 in.
SS-2015-04	736964.09	239081.21	0-1	Dry, brown silt with fine roots.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 0-10 in.
			1-6	Dry, light brown, fine sand with some silt, trace fine gravel and lots of roots.	
			6-10	Moist, tan, fine sand, trace fine gravel and roots.	
SS-2015-05	737021.04	239069.70	0-1	Dry, brown, organic matter, some silt, and glass fragments.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 1-10 in.
			1-5	Dry, brown, fine sand, trace silt, some fine gravel, small roots and trace broken glass.	
			5-10	Dry, brown, fine sand, trace silt, small roots, glass and plastic debris.	

**TABLE 1**  
**SURFICIAL SOIL SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH (in.)	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing			
SS-2015-06	737045.24	239069.49	0-1	Dry, dark brown, silty, clay, and sand, fine roots and organic matter.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 1-10 in.
			1-4	Moist, dark brown, fine sand with silt and lots of fine roots.	
			4-10	Moist, light brown to tan, fine sand, some silt, trace fine gravel and trace of broken glass.	
SS-2015-07	737074.15	239090.45	0-5	Dry, dark brown to rusty, fine sand, trace silt, trace gravel, and debris (glass, concrete, plastic, slag and metal).	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 0-5 in.
SS-2015-08	736950.85	239044.17	0-1	Root zone, topsoil.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-8 in.
			1-8	Dry, light brown, fine sand, some silt, some fine to coarse gravel (less than .25 in.).	
SS-2015-09	737026.23	239043.06	0-1	Moist, light brown, fine sand, lots of fine roots.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 0-10 in.
			1-10	Moist, light brown, fine sand, trace silt, trace fine gravel and lots of fine roots.	
SS-2015-10	737114.05	239055.28	0-10	Moist, brown, fine sand with some silt and fine gravel, trace gravel and some debris (wood and roots).	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-10 in.



**TABLE 1**  
**SURFICIAL SOIL SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH (in.)	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing			
SS-2015-11	737084.53	239109.52	0-4	Dry, dark brown, medium sand with small roots.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 0-7 in.
			4-7	Dry, brown, medium sand with some small gravel and debris (scrap metal, glass, slag).	

Location Coordinates: Michigan GeoRef, North American Datum (NAD) 1983, Meters

TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection						Contact			
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-01		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	206-44-0	Fluoranthene	3,500			730,000		730,000		5,500		46,000,000		130,000,000	
	85-01-8	Phenanthrene	2,200			56,000		160,000		2,100		1,600,000		5,200,000	
	129-00-0	Pyrene	3,500			480,000		480,000		ID		29,000,000		84,000,000	
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	72-54-8	4-4'-DDD	81			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	280			NLL		NLL		NLL		45,000		190,000	
	50-29-3	2-4'-DDT	49			NLL		NLL		NLL		57,000		280,000	
	50-29-3	4-4'-DDT	180			NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	
	7440-36-0	Antimony	0.40			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	5.2		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	90		75	1,300		1,300		440,000	G	37,000		130,000	
	7440-43-9	Cadmium (B)	0.70		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-50-8	Copper (B)	19		32	5,800		5,800		75	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.12		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	11,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	70		21	700		700		2,800,000	G,X	400		900	DD
7439-96-5	Manganese (B)	210		440	1.0		1.0		56	G,X	25,000		90,000		
7439-97-6	Mercury [Total] (B,Z)	0.06		0.13	1.7		1.7		0.05	M	160		580		
7440-02-0	Nickel (B)	12		20	100		100		76	G	40,000		150,000		
7440-22-4	Silver (B)	0.10		1.0	4.5		13		0.10	M	2,500		9,000		
7440-62-2	Vanadium	17			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	120		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$  = microgram/kilogram  $\text{mg}/\text{kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 Shaded Criteria indicate an exceedance.  
 A blank Default Background column means that value has not been determined.

**TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SS-2015-02		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
		No volatile organic compounds detected above reporting limits.														
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
	56-55-3	Benzo(a)anthracene (Q)	1,700	T		NLL		NLL		NLL		20,000		80,000		
	205-99-2	Benzo(b)fluoranthene (Q)	2,700	T		NLL		NLL		NLL		20,000		80,000		
	218-01-9	Chrysene (Q)	2,100	T		NLL		NLL		NLL		2,000,000		8,000,000		
	206-44-0	Fluoranthene	3,400			730,000		730,000		5,500		46,000,000		130,000,000		
	85-01-8	Phenanthrene	1,800	T		56,000		160,000		2,100		1,600,000		5,200,000		
	129-00-0	Pyrene	3,600			480,000		480,000		ID		29,000,000		84,000,000		
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
	72-54-8	4-4'-DDD	200			NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	270			NLL		NLL		NLL		45,000		190,000		
	50-29-3	2-4'-DDT	70			NLL		NLL		NLL		57,000		280,000		
	50-29-3	4-4'-DDT	200			NLL		NLL		NLL		57,000		280,000		
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		
	7440-36-0	Antimony	1.7					4.3		4.3		94	X	180		670
	7440-38-2	Arsenic	5.9		5.8		4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	130		75		1,300		1,300		440,000	G	37,000		130,000	
	7440-43-9	Cadmium (B)	1.1		1.2		6.0		6.0		3.6	G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	40		18		30		30		3.3		2,500		9,200	
	7440-50-8	Copper (B)	58		32		5,800		5,800		75,000	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.41		0.39		4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	16,000	A09	12,000		6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	240		21		700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	340		440		1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.10		0.13		1.7		1.7		0.05	M	160		580	
	7439-98-7	Molybdenum (B)	2.1	A09			1.5		4.2		64	X	2,600		9,600	
	7440-02-0	Nickel (B)	17		20		100		100		76	G	40,000		150,000	
7440-22-4	Silver (B)	0.60		1.0		4.5		13		0.10	M	2,500		9,000		
7440-62-2	Vanadium	19				72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	230		47		2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$  = microgram/kilogram .  $\text{mg}/\text{kg}$  = milligram/kilogram  
Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
Shaded Criteria indicate an exceedance.  
A blank Default Background column means that value has not been determined.

**TABLE 2**  
**SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-02-  DUP		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	56-55-3	Benzo(a)anthracene (Q)	4,100			NLL		NLL		NLL		20,000		80,000	
	205-99-2	Benzo(b)fluoranthene (Q)	5,900			NLL		NLL		NLL		20,000		80,000	
	218-01-9	Chrysene (Q)	4,900			NLL		NLL		NLL		2,000,000		8,000,000	
	206-44-0	Fluoranthene	7,800			730,000		730,000		5,500		46,000,000		130,000,000	
	85-01-8	Phenanthrene	4,400			56,000		160,000		2,100		1,600,000		5,200,000	
	129-00-0	Pyrene	8,900			480,000		480,000		ID		29,000,000		84,000,000	
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	72-54-8	4-4'-DDD	210			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	250			NLL		NLL		NLL		45,000		190,000	
	50-29-3	2-4'-DDT	72			NLL		NLL		NLL		57,000		280,000	
	50-29-3	4-4'-DDT	320			NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	
	7440-36-0	Antimony	1.1			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	5.7		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	130		75	1,300		1,300		440,000	G	37,000		130,000	
	7440-43-9	Cadmium (B)	0.90		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-50-8	Copper (B)	46		32	5,800		5,800		75,000	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.39		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	14,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	190		21	700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	250		440	1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	160		580	
	7439-98-7	Molybdenum (B)	1.5	A09		1.5		4.2		64	X	2,600		9,600	
	7440-02-0	Nickel (B)	15		20	100		100		76	G	40,000		150,000	
	7440-22-4	Silver (B)	0.60		1.0	4.5		13		0.10	M	2,500		9,000	
7440-62-2	Vanadium	17			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	200		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$  = microgram/kilogram     $\text{mg}/\text{kg}$  = milligram/kilogram  
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TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-03		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	120-12-7	Anthracene	3,600			41,000		41,000		ID		230,000,000		730,000,000	
	56-55-3	Benzo(a)anthracene (Q)	20,000	A03		NLL		NLL		NLL		20,000		80,000	
	205-99-2	Benzo(b)fluoranthene (Q)	26,000	A03		NLL		NLL		NLL		20,000		80,000	
	207-08-9	Benzo(k)fluoranthene (Q)	7,500			NLL		NLL		NLL		200,000		800,000	
	191-24-2	Benzo(g,h,i)perylene	9,500			NLL		NLL		NLL		2,500,000		7,000,000	
	50-32-8	Benzo(a)pyrene (Q)	17,000	A03		NLL		NLL		NLL		2,000		8,000	
	218-01-9	Chrysene (Q)	20,000	A03		NLL		NLL		NLL		2,000,000		8,000,000	
	206-44-0	Fluoranthene	38,000	A03		730,000		730,000		5,500		46,000,000		130,000,000	
	193-39-5	Indeno(1,2,3-cd)pyrene (Q)	9,200			NLL		NLL		NLL		20,000		80,000	
	85-01-8	Phenanthrene	18,000	A03		56,000		160,000		2,100		1,600,000		5,200,000	
	129-00-0	Pyrene	35,000	A03		480,000		480,000		ID		29,000,000		84,000,000	
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	
	72-54-8	4-4'-DDD	450	T		NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	3,500			NLL		NLL		NLL		45,000		190,000	
	50-29-3	2-4'-DDT	1,200			NLL		NLL		NLL		57,000		280,000	
	50-29-3	4-4'-DDT	5,600			NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	
	7440-36-0	Antimony	8.4			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	39		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	760	X3	75	1,300		1,300		440,000	G	37,000		130,000	
	7440-43-9	Cadmium (B)	4.8		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	35		18	30		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	7.7		6.8	0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	170		32	5,800		5,800		75,000	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	1.7		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	19,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	1,100	X3	21	700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	460	X3	440	1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	1.0	A07	0.13	1.7		1.7		0.05	M	160		580	
	7439-98-7	Molybdenum (B)	3.5	A09		1.5		4.2		64	X	2,600		9,600	
7440-02-0	Nickel (B)	27		20	100		100		76	G	40,000		150,000		
7782-49-2	Selenium (B)	16		0.41	4.0		4.0		0.40		2,600		9,600		
7440-22-4	Silver (B)	1.1		1.0	4.5		13		0.10	M	2,500		9,000		
7440-28-0	Thallium (B)	0.80			2.3		2.3		4.2	X	35		130		
7440-62-2	Vanadium	25			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	980	X3	47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$  = microgram/kilogram     $\text{mg}/\text{kg}$  = milligram/kilogram  
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**TABLE 2**  
**SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-04		<b>VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	72-54-8	4-4'-DDD	9.4	T		NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	14	T		NLL		NLL		NLL		45,000		190,000	
	50-29-3	2-4'-DDT	7.6	T		NLL		NLL		NLL		57,000		280,000	
	50-29-3	4-4'-DDT	28			NLL		NLL		NLL		57,000		280,000	
	1336-36-3	Polychlorinated biphenyls [PCBs] (J,T)	120			NLL		NLL		NLL		4,000	T	16,000	T
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	7440-38-2	Arsenic	5.7		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	29		75	1,300		1,300		440,000	G	37,000		130,000	
	7440-41-7	Beryllium	0.20			51		51		85	G	410		1,600	
	7440-43-9	Cadmium (B)	0.30		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	13		18	30		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	3.5		6.8	0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	13		32	5,800		5,800		75,000	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.17		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	9,500	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	28		21	700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	150		440	1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	160		580	
	7440-02-0	Nickel (B)	9.6		20	100		100		76	G	40,000		150,000	
	7782-49-2	Selenium (B)	0.30		0.41	4.0		4.0		0.40		2,600		9,600	
	7440-62-2	Vanadium	13			72		990		430		750	DD	5,500	DD
	7440-66-6	Zinc (B)	60		47	2,400		5,000		170	G	170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 Shaded Criteria indicate an exceedance.  
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**TABLE 2**  
**SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-05		<b>VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	206-44-0	Fluoranthene	3,200			730,000		730,000		5,500		46,000,000		130,000,000	
	129-00-0	Pyrene	3,200			480,000		480,000		ID		29,000,000		84,000,000	
		<b>PESTICIDES/PCBS</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	72-54-8	4-4'-DDD	240			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	180			NLL		NLL		NLL		45,000		190,000	
	50-29-3	2-4'-DDT	81			NLL		NLL		NLL		57,000		280,000	
	50-29-3	4-4'-DDT	340			NLL		NLL		NLL		57,000		280,000	
	1336-36-3	Polychlorinated biphenyls [PCBs] (J,T)	310	JD		NLL		NLL		NLL		4,000	T	16,000	T
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	7440-36-0	Antimony	2.0			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	7.9		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	120		75	1,300		1,300		440,000	G	37,000		130,000	
	7440-43-9	Cadmium (B)	2.7		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-48-4	Cobalt	5.2		6.8	0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	97		32	5,800		5,800		75,000	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.83		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	16,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	300		21	700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	420		440	1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.20		0.13	1.7		1.7		0.05	M	160		580	
7439-98-7	Molybdenum (B)	1.6	A09		1.5		4.2		64	X	2,600		9,600		
7440-02-0	Nickel (B)	18		20	100		100		76	G	40,000		150,000		
7440-22-4	Silver (B)	1.2		1.0	4.5		13		0.10	M	2,500		9,000		
7440-62-2	Vanadium	17			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	450		47	2,400		5,000		170	G	170,000		630,000		

µg/kg = microgram/kilogram mg/kg = milligram/kilogram  
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TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SS-2015-06		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )				
		No volatile organic compounds detected above reporting limits.														
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
		No semi-volatile organic compounds detected above reporting limits.														
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
	72-54-8	4-4'-DDD	25			NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	60			NLL		NLL		NLL		45,000		190,000		
	50-29-3	2-4'-DDT	15			NLL		NLL		NLL		57,000		280,000		
	50-29-3	4-4'-DDT	77			NLL		NLL		NLL		57,000		280,000		
	1336-36-3	Polychlorinated biphenyls [PCBs] (J,T)	170			NLL		NLL		NLL		4,000	T	16,000	T	
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		
	7440-36-0	Antimony	0.50			4.3		4.3		94	X	180		670		
	7440-38-2	Arsenic	3.5		5.8	4.6		4.6		4.6		7.6		37		
	7440-39-3	Barium (B)	47		75	1,300		1,300		440,000	G	37,000		130,000		
	7440-41-7	Beryllium	0.20			51		51		85	G	410		1,600		
	7440-43-9	Cadmium (B)	1.0		1.2	6.0		6.0		3.6	G,X	550		2,100		
	7440-47-3	Chromium [Total] (H)	14		18	30		30		3.3		2,500		9,200		
	7440-48-4	Cobalt	3.2		6.8	0.8		2.0		2.0		2,600		9,000		
	7440-50-8	Copper (B)	19		32	5,800		5,800		75,000	G	20,000		73,000		
	57-12-5	Cyanide (P,R)	0.28		0.39	4.0		4.0		0.10		12		250		
	7439-89-6	Iron (B)	9,100	A09	12,000	6.0		6.0		NA		160,000		580,000		
	7439-92-1	Lead (B)	110		21	700		700		2,800,000	G,X	400		900	DD	
	7439-96-5	Manganese (B)	150		440	1.0		1.0		56	G,X	25,000		90,000		
	7439-97-6	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	160		580		
	7440-02-0	Nickel (B)	11		20	100		100		76	G	40,000		150,000		
	7782-49-2	Selenium (B)	0.80		0.41	4.0		4.0		0.40		2,600		9,600		
7440-22-4	Silver (B)	0.40		1.0	4.5		13		0.10	M	2,500		9,000			
7440-62-2	Vanadium	13			72		990		430		750	DD	5,500	DD		
7440-66-6	Zinc (B)	150		47	2,400		5,000		170	G	170,000		630,000			

$\mu\text{g}/\text{kg}$  = microgram/kilogram     $\text{mg}/\text{kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
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**TABLE 2**  
**SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SS-2015-07		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		
	127-18-4	Tetrachloroethylene	360			100		100		1,200	X	200,000	C	930,000	C	
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		
	56-55-3	Benzo(a)anthracene (Q)	5,200			NLL		NLL		NLL		20,000		80,000		
	205-99-2	Benzo(b)fluoranthene (Q)	8,100			NLL		NLL		NLL		20,000		80,000		
	50-32-8	Benzo(a)pyrene (Q)	5,200	T		NLL		NLL		NLL		2,000		8,000		
	218-01-9	Chrysene (Q)	5,800			NLL		NLL		NLL		2,000,000		8,000,000		
	206-44-0	Fluoranthene	9,800			730,000		730,000		5,500		46,000,000		130,000,000		
	85-01-8	Phenanthrene	4,600			56,000		160,000		2,100		1,600,000		5,200,000		
	129-00-0	Pyrene	10,000			480,000		480,000		ID		29,000,000		84,000,000		
			<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	72-54-8	4-4'-DDD	400			NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	450			NLL		NLL		NLL		45,000		190,000		
	50-29-3	2-4'-DDT	180			NLL		NLL		NLL		57,000		280,000		
	50-29-3	4-4'-DDT	990			NLL		NLL		NLL		57,000		280,000		
			<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
	7440-36-0	Antimony	6.3			4.3		4.3		94	X	180		670		
	7440-38-2	Arsenic	22		5.8	4.6		4.6		4.6		7.6		37		
	7440-39-3	Barium (B)	480		75	1,300		1,300		440,000	G	37,000		130,000		
	7440-41-7	Beryllium	2.3			51		51		85	G	410		1,600		
	7440-43-9	Cadmium (B)	4.3		1.2	6.0		6.0		3.6	G,X	550		2,100		
	7440-47-3	Chromium [Total] (H)	37		18	30		30		3.3		2,500		9,200		
	7440-48-4	Cobalt	12		6.8	0.8		2.0		2.0		2,600		9,000		
	7440-50-8	Copper (B)	220		32	5,800		5,800		75,000	G	20,000		73,000		
	57-12-5	Cyanide (P,R)	1.0		0.39	4.0		4.0		0.10		12		250		
	7439-89-6	Iron (B)	40,000	A09	12,000	6.0		6.0		NA		160,000		580,000		
	7439-92-1	Lead (B)	620		21	700		700		2,800,000	G,X	400		900	DD	
	7439-96-5	Manganese (B)	510		440	1.0		1.0		56	G,X	25,000		90,000		
	7439-97-6	Mercury [Total] (B,Z)	1.7		0.13	1.7		1.7		0.05	M	160		580		
	7439-98-7	Molybdenum (B)	7.6	A09		1.5		4.2		64	X	2,600		9,600		
	7440-02-0	Nickel (B)	160		20	100		100		76	G	40,000		150,000		
	7782-49-2	Selenium (B)	2.3		0.41	4.0		4.0		0.40		2,600		9,600		
	7440-22-4	Silver (B)	2.3		1.0	4.5		13		0.10	M	2,500		9,000		
7440-62-2	Vanadium	51			72		990		430		750	DD	5,500	DD		
7440-66-6	Zinc (B)	2,600		47	2,400		5,000		170	G	170,000		630,000			

$\mu\text{g/kg}$  = microgram/kilogram  $\text{mg/kg}$  = milligram/kilogram  
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TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Contact						
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-2015-08		<b>VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)			
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)			
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)			
	72-54-8	4-4'-DDD	4.5	T		NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	17	T		NLL		NLL		NLL		45,000		190,000	
	50-29-3	4-4'-DDT	6.8	T		NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	7440-38-2	Arsenic	6.0		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	48		75	1,300		1,300		440,000	G	37,000		130,000	
	7440-41-7	Beryllium	0.60			51		51		85	G	410		1,600	
	7440-43-9	Cadmium (B)	0.30		1.2	6.0		6.0			G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	35		18	30		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	4.3		6.8	0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	13		32	5,800		5,800		75,000	G	20,000		73,000	
	7439-89-6	Iron (B)	15,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	27		21	700		700		2,800,000	G,X	400		900	DD
	7439-96-5	Manganese (B)	810		440	1.0		1.0		56	G,X	25,000		90,000	
	7439-98-7	Molybdenum (B)	1.3	A09		1.5		4.2		64	X	2,600		9,600	
7440-02-0	Nickel (B)	16		20	100		100			G	40,000		150,000		
7782-49-2	Selenium (B)	0.40		0.41	4.0		4.0		0.40		2,600		9,600		
7440-62-2	Vanadium	20			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	49		47	2,400		5,000		170	G	170,000		630,000		

µg/kg = microgram/kilogram mg/kg = milligram/kilogram  
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TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SS-2015-09		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
		No volatile organic compounds detected above reporting limits.														
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
	56-55-3	Benzo(a)anthracene (Q)	4,100			NLL		NLL		NLL		20,000		80,000		
	205-99-2	Benzo(b)fluoranthene (Q)	5,500			NLL		NLL		NLL		20,000		80,000		
	218-01-9	Chrysene (Q)	4,500			NLL		NLL		NLL		2,000,000		8,000,000		
	206-44-0	Fluoranthene	9,200			730,000		730,000		5,500		46,000,000		130,000,000		
	85-01-8	Phenanthrene	7,300			56,000		160,000		2,100		1,600,000		5,200,000		
	129-00-0	Pyrene	9,100			480,000		480,000		ID		29,000,000		84,000,000		
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
	72-54-8	4-4'-DDD	340			NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	230			NLL		NLL		NLL		45,000		190,000		
	50-29-3	2-4'-DDT	66			NLL		NLL		NLL		57,000		280,000		
	50-29-3	4-4'-DDT	260			NLL		NLL		NLL		57,000		280,000		
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		
	7440-36-0	Antimony	0.80					4.3		4.3		94	X	180		670
	7440-38-2	Arsenic	10		5.8		4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	150		75		1,300		1,300		440,000		G	37,000		130,000
	7440-43-9	Cadmium (B)	1.4		1.2		6.0		6.0		3.6		G,X	550		2,100
	7440-48-4	Cobalt	5.7		6.8		0.8		2.0		2.0			2,300		9,000
	7440-50-8	Copper (B)	65		32		5,800		5,800		75,000		G	20,000		73,000
	57-12-5	Cyanide (P,R)	0.37		0.39		4.0		4.0		0.10			12		250
	7439-89-6	Iron (B)	21,000	A09	12,000		6.0		6.0		NA			160,000		580,000
	7439-92-1	Lead (B)	130		21		700		700		2,800,000		G,X	400		900
	7439-96-5	Manganese (B)	410		440		1.0		1.0				G,X	25,000		90,000
	7439-97-6	Mercury [Total] (B,Z)	0.20		0.13		1.7		1.7		0.05		M	150		580
	7439-98-7	Molybdenum (B)	2.1	A09			1.5		4.2		64		X	2,600		9,600
	7440-02-0	Nickel (B)	20		20		100		100				G	40,000		150,000
7440-22-4	Silver (B)	0.40		1.0		4.5		13		0.10		M	2,500		9,000	
7440-62-2	Vanadium	22				72		990		430			750	DD	5,500	
7440-66-6	Zinc (B)	240		47		2,400		5,000		170		G	170,000		630,000	

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 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
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TABLE 2  
SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SS-2015-10		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		
		No volatile organic compounds detected above reporting limits.														
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )
	206-44-0	Fluoranthene	3,900			730,000		730,000		5,500		46,000,000		130,000,000		
	129-00-0	Pyrene	4,300			480,000		480,000		ID		29,000,000		84,000,000		
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )
	72-54-8	4-4'-DDD	970			NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	18,000			NLL		NLL		NLL		45,000		190,000		
	50-29-3	2-4'-DDT	3,400			NLL		NLL		NLL		57,000		280,000		
	50-29-3	4-4'-DDT	15,000			NLL		NLL		NLL		57,000		280,000		
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )
	7440-36-0	Antimony	2.2			4.3		4.3		94	X	180		670		
	7440-38-2	Arsenic	11		5.8	4.6		4.6		4.6		7.6		37		
	7440-39-3	Barium (B)	120		75	1,300		1,300		440,000	G	37,000		130,000		
	7440-41-7	Beryllium	0.50			51		51		85	G	410		1,600		
	7440-43-9	Cadmium (B)	1.3		1.2	6.0		6.0		3.6	G,X	550		2,100		
	7440-47-3	Chromium [Total] (H)	29		18	30		30		3.3		2,500		9,200		
	7440-48-4	Cobalt	4.5		6.8	0.8		2.0		2.0		2,600		9,000		
	7440-50-8	Copper (B)	45		32	5,800		5,800		75,000	G	20,000		73,000		
	57-12-5	Cyanide (P,R)	0.43		0.39	4.0		4.0		0.10		12		250		
	7439-89-6	Iron (B)	13,000	A09	12,000	6.0		6.0		NA		160,000		580,000		
	7439-92-1	Lead (B)	230		21	700		700		2,800,000	G,X	400		900	DD	
	7439-96-5	Manganese (B)	510		440	1.0		1.0		56	G,X	25,000		90,000		
	7439-97-6	Mercury [Total] (B,Z)	0.20		0.13	1.7		1.7		0.05	M	160		580		
	7439-98-7	Molybdenum (B)	2.6	A09		1.5		4.2		64	X	2,600		9,600		
	7440-02-0	Nickel (B)	20		20	100		100			G	40,000		150,000		
	7782-49-2	Selenium (B)	0.80		0.41	4.0		4.0		0.40		2,600		9,600		
7440-22-4	Silver (B)	0.30		1.0	4.5		13		0.10	M	2,500		9,000			
7440-62-2	Vanadium	19			72		990		430		750	DD	5,500	DD		
7440-66-6	Zinc (B)	170		47	2,400		5,000		170	G	170,000		630,000			

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**TABLE 2**  
**SURFICIAL SOIL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Contact		
						Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria	
SS-2015-11		<b>VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
		No volatile organic compounds detected above reporting limits.									
		<b>SEMI-VOLATILES</b>	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
56-55-3		Benzo(a)anthracene (Q)	2,700			NLL	NLL	NLL	20,000	80,000	
218-01-9		Chrysene (Q)	3,300			NLL	NLL	NLL	2,000,000	8,000,000	
206-44-0		Fluoranthene	5,000			730,000	730,000	5,500	46,000,000	130,000,000	
85-01-8		Phenanthrene	2,500			56,000	160,000	2,100	1,600,000	5,200,000	
129-00-0		Pyrene	5,600			480,000	480,000	ID	29,000,000	84,000,000	
		<b>PESTICIDES/PCBS</b>	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
72-54-8		4-4'-DDD	1,300			NLL	NLL	NLL	95,000	400,000	
72-55-9		4-4'-DDE	3,800			NLL	NLL	NLL	45,000	190,000	
50-29-3		4-4'-DDT	1,100			NLL	NLL	NLL	57,000	280,000	
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
7440-36-0		Antimony	1.0			4.3	4.3	94	180	670	X
7440-38-2		Arsenic	9.4		5.8	4.6	4.6	4.6	7.6	37	
7440-39-3		Barium (B)	110		75	1,300	1,300	440,000	37,000	130,000	G
7440-43-9		Cadmium (B)	1.1		1.2	6.0	6.0		550	2,100	G,X
7440-47-3		Chromium [Total] (H)	27		18	30	30	3.3	2,500	9,200	
7440-50-8		Copper (B)	62		32	5,800	5,800	75,000	20,000	73,000	G
57-12-5		Cyanide (P,R)	0.46		0.39	4.0	4.0	0.10	12	250	
7439-89-6		Iron (B)	14,000	A09	12,000	6.0	6.0	NA	160,000	580,000	
7439-92-1		Lead (B)	350	X3	21	700	700	2,800,000	400	900	G,X, DD
7439-96-5		Manganese (B)	230	A04	440	1.0	1.0	56	25,000	90,000	G,X
7439-97-6		Mercury [Total] (B,Z)	0.30		0.13	1.7	1.7	0.05	160	580	M
7440-02-0		Nickel (B)	22		20	100	100	76	40,000	150,000	G
7440-22-4		Silver (B)	0.60		1.0	4.5	13	0.10	2,500	9,000	M
7440-62-2		Vanadium	19			72	990	430	750	5,500	DD
7440-66-6		Zinc (B)	5,400	X3	47	2,400	5,000	170	170,000	630,000	G, DD

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**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-01	737034.64	239246.55	0-4	40	0-5	Dry, dark brown, topsoil with some organics.	Deep grab sample.  VOA portion of sample collected at 37 in. of 0-4 ft. core.  Remaining sample portion taken from 32-37 in. of 0-4 ft. core.  Corresponding well TMW-01.  PID = 0.0 for all cores.
					5-25	Dry to moist, red to brown, medium to coarse sand, some pea stone.	
					25-32.5	Moist, gray to light gray, medium to coarse sand, some pea stone.	
			4-8	43	32.5-40	Moist, red to gray, medium to coarse sand with some black spots.	
					0-5	Slough.	
					5-7	Moist, red to gray, medium to coarse sand with some black spots.	
					7-11	Moist, gray, coarse sand with pea stone.	
			7.5-11.5	43	11-23	Saturated, red to rusty orange, fine to medium sand.	
					23-29	Saturated, gray, coarse sand with pea stone.	
					29-43	Moist to saturated, gray, silt.	
					0-4	Slough.	
					4-14	Saturated, gray silt with pea stone gravel.	
			11.5-15.5	38	14-22	Saturated, gray, silt.	
22-43	Moist, gray, fine sand.						
0-13	Saturated, gray, silty sand.						
13-17	Moist, gray clay.						
				17-38	Saturated, gray, silty sand with trace clay.		

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-02	737095.66	239102.39			0-30	Dry, dark brown, fine sand with organic material (roots and leaves) and debris (foam material, glass, metal, slag).	Deep grab sample.
					30-32	Dry to moist, light brown, fine sand with gravel.	Hand Auger.  VOA portion of sample collected at 24 in.  Remaining sample portion taken from 24-30 in.

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-03	737218.80	239119.62	0-4	37	0-2	Moist, dark brown to black topsoil with organic matter. PID = 0.0	Deep grab sample.  VOA portion of sample collected at 15 in. of 4-8 ft. core.  Remaining sample portion taken from 14-20 in. of 4-8 ft. core.  Corresponding well TMW-03.
					2-10	Dry, gray concrete with pea stones. PID = 0.1 - 0.4	
					10-13	Moist, brown, fine sand with trace pea stone.	
					13-23	Moist, light brown, coarse to medium sand with some large pea stone.	
			4-8	46	23-30	Dry to moist, light brown, fine sand. PID = 0.0 at 10-30 in.	
					30-37	Gray to light brown, gravel to fine sand with large pea stone and trace organic matter (roots). PID = 0.1 - 0.3	
					0-3	Gray to light brown, gravel to fine sand with large pea stone and trace organic matter (roots). PID = 0.0	
					3-6	Slough. PID = 0.2	
			8-11	48	6-14	Moist, light brown, coarse sand with fine gravel and stone. PID = 0.5 - 1.2	
					14-35	Moist to saturated, light brown to red, silty sand.	
					35-46	Saturated, gray, silty sand. PID = 0.2-0.9 at 14-46 in.	
					0-15	Slough.	
			12- 16 (Discrete Core)	42	15-48	Saturated, gray silt, dryer towards end. PID = 0.3 - 1.1 at 0-48 in.	
					0-11	Saturated, gray silt. PID = 0.3 - 1.1	
11-15	Saturated, gray silt with bubbles. PID = 2.2						
15-22	Saturated, gray silt.						
22-25	Moist, gray clay.						
25-42	Moist, gray silt with trace clay. PID = 0.3 - 1.1 at 15-42 in.						



**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-04	737115.28	239147.55	0-4	34	0-8	Dry, dark brown topsoil with some organic material.	Deep grab sample.
			8-17			Dry to moist, brown to dark brown sand with large gravel and pea stone.	
			17-34			Moist, rusty brown, medium to coarse, sand with few pea stones. PID = 0.0 for entire core	
			4-8	46	0-2	Slough.	Remaining sample portion taken from 26-31 in. of 0-4 ft. core.
			2-5			Moist, rusty brown, medium to coarse, sand with few pea stones.	
			5-25			Moist to saturated, gray-brown, coarse sand to fine gravel.	
			25-34			Moist to saturated, gray silt with a rusty red seam.	
			34-46			Moist, gray clay with some silt. PID = 0.0 for entire core	Corresponding well TMW-04.
			8-12	37	0-1	Slough.	
			1-21			Saturated, gray, silt.	
			21-37			Moist to dry, gray, clay, trace silt. PID = 0.0 – 0.2 for entire core.	

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS		
	Easting	Northing							
SB-2015-05	737051.44	239047.39	0-4	30	0-6	Dry, brown to light brown, sandy, silty topsoil, organic rich, roots, trace coarse sand to fine gravel.	Deep grab sample.  VOA portion of sample collected at 22-24 in. of 0-4 ft. core.  Remaining sample portion taken from 9-30 in. of 0-4 ft. core.  Corresponding well TMW-07.		
					6-9	Dry, tan to brown, sandy, silty topsoil, organic rich, coarse sand to fine gravel.			
					9-30			Fill; dry to moist, changes color from dark brown to brown, to rusty-brown to grayish-brown, to tan-brown, roots, plastic, glass, debris, slag, metal and small stones.	
					4-8	48		0-10 10-24	Slough. Dry to moist, light rusty-brown, fine to medium sand, trace silt, trace coarse sand to fine gravel, occasional stone.
								24-34	Moist, silty clay, with medium to coarse sand, fine gravel and occasional stone.
								34-48	Moist, light rusty-tan with olive-tan, fine sand with silt and finely layered seams of sandy silt.
					7-11	48		0-18 18-29	Slough. Saturated, olive-brown to tan-brown, fine sand, trace silt, finely layered sandy silt.
								29-39	Saturated, light olive-gray, sandy silt with thin seams of silty clay at 37 inches.
								39-48	Moist, rusty olive-brown to rusty olive-gray, dense, layered silty clay and sandy silt.
					12-16 (Discrete Core)	39		0-15	Moist, light gray, very fine, sandy silt.
					16-20 (Discrete Core)	40		15-39	Moist, light olive-gray, finely layered, sandy silt.
								0-4	Moist, olive-gray and olive-tan, interlayered mixture of clay, silts, silty sand, and sandy silt.

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-06	737070.33	239034.56	0-4	34	0-5	Moist, yellowish brown, fine to medium sand, sandy and silty organic rich topsoil, trace clay.	Deep grab sample.  VOA portion of sample collected at 8-10 in. of 4-8 ft. core.  Remaining sample portion taken from 6-18 in. of 4-8 ft. core.  Corresponding well TMW-08.
					5-9.5	Moist, rocky clay with concrete.	
					9.5-11	Moist, tan-brown, rusty, fine to medium sand.	
					11-18	Moist, dark brown clay with organic rich sand, wood fibers and roots becoming sandier.	
					18-21	Moist, light brown, red tint, sand with wood fibers, plastic pieces and fill material.	
					21-24	Moist, olive-brown, finely layered sand with roots.	
					24-34	Moist, dark brown to rusty brown, fine to medium sand, some silt, abundant tree fibers, debris, and broken glass.	
			4-8	37	0-6	Fill material; dry to moist, dark brown to dark rusty-brown, organic rich, glass and wood fibers.	
					6-11	Moist, dark grayish-brown to rusty-brown, fine sand and silt with rubber, glass, rocks and roots.	
					11-18	Moist, olive-tan, medium to coarse sand with mix of sand, silt, clay and fine gravel, with glass and roots.	
					18-37	Moist, darker olive-brown mix with brown rust color, wood fibers, roots, glass, rubber and leather; rustier color with depth.	
			8-12	48	0-8	Fill material, dry to moist, brown to dark brown, rusty-brown, silt, wood fibers, glass, plastic, slag, trace of fine gravel.	
					8-20	Moist, mottled rusty-tan to olive-tan to olive-gray, silt to sandy clay silt with glass and occasional pea stone.	
					20-23	Moist, dark brown to black-brown, sandy silt with trace clay, roots, and trace fine gravel.	
					23-27	Moist to saturated, olive-gray, sandy silt with pea gravel and roots.	
					27-48	Saturated, olive-gray, stiff, sandy silt with trace clay.	
12-16	41	0-1.5	Slough.				
		1.5-21	Saturated, olive-gray, stiff sandy silt with seams of clayey silt at 5-9 inches.				
		21-41	Moist to saturated, tan, olive-gray, silty sand, seam of silty clay at 33 inches.				
16-20	41	0-1	Slough.				
		1-41	Moist to saturated, olive to light gray, silty sand, 1 inch seam of silty clay at 9 inches.				
20-24	45.5	0-2	Slough.				
		2-24.5	Saturated, olive-gray, stiff, very fine, silty sand.				
		24.5-28.5	Moist, olive-gray, stiff, plastic, silty clay.				
		28.5-45.5	Moist to saturated, olive-gray, sandy silt with some clay seams; grading to silty sand at 39 inches.				
PID = 0.0 for all cores.							

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-07	737124.84	239050.99	0-4	36	0-19	Topsoil; moist, dark to rusty-brown, organic rich, fine to medium sand, with debris, glass and brick.	Deep grab sample.  VOA portion of sample collected at 5-8 in. of 4-8 ft. core.  Remaining sample portion taken from 2-17 in. of 4-8 ft. core.  Corresponding well TMW-06.
			4-8	46	19-33	Dry to moist, rusty-tan, fine sand with silt and stones.	
					33- 36	Moist, rusty-brown, fine to coarse sand with clay and small gravel.	
					0-2	Slough.	
			7.5-11.5	48	2-17	Moist, mottled, gray to rusty, fine sand and silt with some glass and debris.	
					17-21	Moist, light rust, fine sand and silt.	
					21-24	Moist, light gray to rusty-tan, stiff, silt to coarse sand.	
			12-16 (Discrete Core)	42	24-46	Moist, olive-brown, sandy silt and fine sand.	
					0-12	Slough.	
					12-30	Dry to moist, rusty olive-brown, sandy silt.	
16-20 (Discrete Core)	44	30-48	Dry to moist, hard, dense, brittle, clay, higher 1 inch of fine sand.				
		0-3	Moist, light olive-gray, fine sand with silt, trace clay.				
		3-12	Moist, light olive-gray, stiff, clayey silt.				
20-24 (Discrete Core)	46	12-14	Moist, light olive-gray, silt, trace clay.				
		14-31	Saturated, gray, silt and fine sand, gravel.				
		31-42	Saturated, olive-gray to light gray, silt and fine sand.				
					0-9	Saturated, olive-gray, fine to very fine sand and silt.	
					9-15	Saturated, olive-gray, finely layered, fine to very fine sand and silt.	
					15-31	Saturated, olive-gray, fine to very fine sand with silt.	
					31-44	Saturated, olive-gray, stiff, silt, with fine to very fine sand.	
					0-5	Moist, olive-gray, fine sand, trace silt.	
					5-23	Saturated, olive-gray, fine to very fine sand, trace silt.	
					23-40	Moist to saturated, olive-gray, dense, fine to very fine sand, trace silt.	
					40-46	Moist to saturated, olive-gray, fine to very fine sand, trace silt.	

PID = 0.0 for all cores.

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-08	736913.10	238963.95	0-4	45	0-8	Moist, olive-brown, sandy, organic rich topsoil with some silt, fine gravel, and trace medium to coarse sand, abundant roots.	Deep grab sample.  VOA portion of sample collected at 18-21 in. of 0-4 ft. core.  Remaining sample portion taken from 8-31 in. of 0-4 ft. core.  Corresponding well TMW-10.
					8-15	Moist, olive-brown, stiff, silty sand with trace fine gravel and occasional pebbles.	
					15-25	Dry to moist, dark gray, silty, fine to coarse sand, trace fine gravel and occasional pebbles.	
			4-8	33	25-31	Moist, olive-gray, medium to coarse sand, trace of silt and fine gravel.	
					31-45	Moist, olive greenish-gray, fine to medium sandy clay and silt with occasional pea stone and gravel.	
					0-5	Slough.	
			8-12	43	5-13	Moist, olive greenish-gray, fine to coarse sandy, silty clay with trace fine gravel and occasional stone.	
					13-17	Saturated, gray, fine sand with roots.	
					17-33	Saturated, gray to olive-gray, medium to fine grading to fine to very fine sand with some black streaks at 25.5 inches and a thin seam of clay at 23.5 inches.	
			12-16	40	0-1	Slough.	
					1-14.5	Saturated, olive-gray, very fine sand with some silt, thin seams of clay 1/8 inch thick.	
					14.5-24	Saturated, olive-gray, stiff, sandy silt with clay stringers.	
			24-40	Saturated, olive-gray, fine to very fine sand with some silt, few clay stringers 27 to 29 inches and 35 to 40 inches.			
			40-43	Moist, olive-gray, sandy, clayey silt.			
			0-24	Moist, olive-gray, stiff, finely layered, sandy silt.			
			24-34	Moist, olive-gray, stiff, finely layered, silty sand.			
			34-40	Moist, alternating layers of dark olive-gray and olive-gray, mixture of sandy silt and silty clay.			
PID = 0.0 for all cores.							

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-09	736935.74	238921.98	0-4	45	0-10	Topsoil, dry, tan to brown, coarse sand with fine gravel, pea stone, and organic matter.	Deep grab sample.  VOA portion of sample collected at 12 in. of 8-12 ft. core.  Remaining sample portion taken from 11-15 in. of 8-12 ft. core.  Corresponding well TMW-09.  Note: Discrete sampler used for 16-20 ft. core and 20-24 ft. core.
					10-45	Moist, olive-brown, medium to fine sand with gravel, brown/gray fill material, some concrete and a medium rock. PID = 0.1 – 0.2 throughout core	
			4-8	38	0-5	Moist, brown, silty sand with some gravel, some organic matter. PID = 0.2 – 0.7 (at top of core)	
					5-8	Broken concrete. PID = 0.4	
					8-38	Moist, tannish-gray, mixed clay, sand, and gravel fill. PID = 0.1 – 0.2	
			8-12	48	0-8	Slough. PID = 0.1 – 0.3	
					8-10	Moist, tannish-gray, mixed clay, sand, and gravel fill.	
					10-12	Moist, blackish-brown, silty, fine organics (looks like topsoil). PID = 1.0	
					12-17	Very moist, gray, fine sand, trace silt, some fabric debris.	
					17-40	Moist, tannish-gray, silt, trace clay.	
					40-45	Moist, tan-gray, fine sand.	
					45-48	Moist, tannish gray, silt, trace clay.	
			11-15	48	0-10	Slough. PID = 0.4 – 0.6	
					10-27	Very moist to saturated, silt, trace sand. PID = 0.4 to 2.5 to 0.1 from top to bottom of 10-27 inch interval.	
					27-32	Moist, medium gray, silty, fine sand with black streaking.	
		32-41	Moist, gray, silt.				
		41-48	Moist, gray, silty, fine sand. PID = 0.0 – 0.1 at 27 to 48 inches				
16-20	38	0-38	Moist, gray, silt. PID = 0.1 – 0.2 <b>Note:</b> Discrete sampler used.				
Discrete	41	0-3	Saturated, gray, silt. <b>Note:</b> Discrete sampler used.				
20-24		3-41	Moist, gray, silt; gets drier towards bottom. PID = 0.0 – 0.1				
Discrete							

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
SB-2015-10	737181.83	239069.24	0-4	34	0-6	Moist, blackish-brown, silty, fine to medium sand with some organics/roots.	Deep grab sample.  VOA portion of sample collected at 5 in. of 4-8 ft. core.  Remaining sample portion taken from 2-16 in. of 4-8 ft. core.  Corresponding well TMW-05.  PID = 0.0 for all cores.
					6-20	Slightly moist, brown, silty, fine to medium sand with some fine gravel, clay chunks, and glass.	
					20-25	Dry, tan brown, fine sand with some silt.	
					25-34	Dry, gray brown, fine sand with trace silt and some wood, glass and metal debris.	
			4-8	35	0-2	Slough.	
					2-6	Dry, gray-brown, fine sand with trace silt and some wood, glass and metal debris.	
					6-21	Dry, tan, fine sand with some silt and a little coarse sand to fine gravel.	
					21-35	Slightly moist, brown, fine sand with some silt and some coarse sand to fine gravel.	
			8-12	33	0-7	Slightly moist, brown, fine sand with some silt and some coarse sand to fine gravel.	
					7-21	Moist, tan, silty, fine sand.	
					21-27	Moist, gray-brown, silt with trace clay.	
					27-33	Moist, gray silt with trace clay.	
			12-16	48	0-6	Slough.	
		6-48	Moist, gray silt, some fine sand, some silty lenses.				
16-20	44	0-3	Slough.				
		3-44	Moist, gray silt with trace clay and some thin silty lenses.				
20-24	48	0-2	Slough.				
		2-48	Moist to very moist, gray silt with trace clay grading to silt, some fine sand and wet, silty, fine sand lenses.				

**TABLE 3**  
**SOIL BORING LITHOLOGY AND SAMPLE LOG**

SAMPLE NUMBER	LOCATION COORDINATES		CORE INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Easting	Northing					
<b>Soil Boring Log for TMW-02:</b>  <b>No soil boring sample collected</b>	737211.99	239273.86	0-4	37	0-11.5	Dry, gray-brown, very fine, dusty sand.	No soil boring sample collected.  Soil boring log during the installation of TMW-02.  Corresponding well TMW-02.
			11.5-20			Dry, tan, very fine, dusty sand.	
			20-37			Dry to moist, brown, coarse sand with little gray pea stone; grayer toward bottom.	
			4-8	48	0-4	Slough.	
					4-9	Dry to moist, brown, coarse sand with little gray pea stone; grayer toward bottom.	
					9-25	Saturated, rusty-brown, silt.	
					25-48	Saturated, gray, silt with trace clay at bottom.	
			8-12	40	0-1	Slough.	
					1-40	Moist to saturated, gray, silty clay, less clay towards bottom of core.	
			12-16	38	0-2	Dry to moist, gray silt.	
					2-21	Saturated, gray, silt.	
					21-38	Moist, gray, silty clay.	
PID = 0.0 for all cores.							

Location Coordinates: Michigan GeoRef, NAD 1983, Meters

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



**TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection				Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-01		<b>VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )			
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )			
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )	( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )		( $\mu\text{g}/\text{kg}$ )			
		No pesticides/PCBs compounds detected above reporting limits.													
		<b>INORGANICS</b>	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )		( $\text{mg}/\text{kg}$ )	
	7440-39-3	Barium (B)	43		75	1,300		1,300		440	G	37,000		130,000	
	7440-50-8	Copper (B)	12	A09	32	5,800		5,800		75	G	20,000		73,000	
	7439-89-6	Iron (B)	9,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	3.1		21	700		700		2,800	G,X	400		900	DD
	7439-96-5	Manganese (B)	780		440	1.0		1.0		56	G,X	25,000		90,000	
	7440-02-0	Nickel (B)	17		20	100		100		76	G	40,000		150,000	
7440-62-2	Vanadium	15			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	22		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$  = microgram/kilogram     $\text{mg}/\text{kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 Shaded Criteria indicate an exceedance.  
 A blank Default Background column means that value has not been determined.

TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Contact						
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-02		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	84-74-2	Di-n-butyl phthalate	8,300			960,000	C	2,700,000	C	11,000		27,000,000	C	87,000,000	C
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	72-54-8	4-4'-DDD	830			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	2,200			NLL		NLL		NLL		45,000		190,000	
	789-02-6	2-4'-DDT	180			NA		NA		NA		NA		NA	
	50-29-3	4-4'-DDT	1,100			NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
	7440-36-0	Antimony	7.8			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	21		5.8	4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	700		75	1,300		1,300		440	G	37,000		130,000	
	7440-43-9	Cadmium (B)	5.3		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	52		18	30		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	9.2		6.8	0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	200		32	5,800		5,800		75	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	18		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	87,000		12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	1,200		21	700		700		2,800	G,X	400		900	DD
7439-96-5	Manganese (B)	510		440	1.0		1.0		56	G,X	25,000		90,000		
7439-97-6	Mercury [Total] (B,Z)	0.20		0.13	1.7		1.7		0.05	M	160		580		
7439-98-7	Molybdenum (B)	4.7			1.5		4.2		64	X	2,600		9,600		
7440-02-0	Nickel (B)	37		20	100		100		76	G	40,000		150,000		
7440-62-2	Vanadium	14			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	2,100		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g/kg}$  = microgram/kilogram  $\text{mg/kg}$  = milligram/kilogram  
Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
Shaded Criteria indicate an exceedance.  
A blank Default Background column means that value has not been determined.

TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-03		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No pesticides/PCBs compounds detected above reporting limits.													
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
		7440-38-2 Arsenic	5.4	A09	5.8	4.6		4.6		4.6		7.6		37	
		7440-39-3 Barium (B)	23		75	1,300		1,300		4,400	G	37,000		130,000	
		7440-48-4 Cobalt	5.3		6.8	0.8		2.0		2.0		2,600		9,000	
		7440-50-8 Copper (B)	12	A09	32	5,800		5,800		75	G	20,000		73,000	
		7439-89-6 Iron (B)	13,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
		7439-92-1 Lead (B)	5.0		21	700		700		2,800	G,X	400		900	DD
		7439-96-5 Manganese (B)	360		440	1.0		1.0		56	G,X	25,000		90,000	
		7440-02-0 Nickel (B)	15		20	100		100		76	G	40,000		150,000	
	7440-62-2 Vanadium	17			72		990		430		750	DD	5,500	DD	
	7440-66-6 Zinc (B)	36		47	2,400		5,000		170	G	170,000		630,000		
SB-2015-03A		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No volatile organic compounds detected above reporting limits.													

$\mu\text{g/kg}$  = microgram/kilogram     $\text{mg/kg}$  = milligram/kilogram  
Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
Shaded Criteria indicate an exceedance.  
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TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact				
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-04		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
		No pesticides/PCBs compounds detected above reporting limits.													
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
7440-38-2		Arsenic	5.7	A09	5.8	4.6	4.6	4.6		7.6		37			
7440-39-3		Barium (B)	33		75	1,300	1,300	440	G	37,000		130,000			
7440-50-8		Copper (B)	10	A09	32	5,800	5,800	75	G	20,000		73,000			
7439-89-6		Iron (B)	13,000	A09	12,000	6.0	6.0	NA		160,000		580,000			
7439-92-1		Lead (B)	5.1		21	700	700	2,800	G,X	400		900	DD		
7439-96-5		Manganese (B)	640		440	1.0	1.0	56	G,X	25,000		90,000			
7440-02-0		Nickel (B)	14		20	100	100	76	G	40,000		150,000			
7440-62-2		Vanadium	22			72	990	430		750	DD	5,500	DD		
7440-66-6		Zinc (B)	28		47	2,400	5,000	170	G	170,000		630,000			

$\mu\text{g/kg}$  = microgram/kilogram     $\text{mg/kg}$  = milligram/kilogram  
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TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection				Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-05		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	91-57-6	2-Methylnaphthalene	460	X		57,000		170,000		4,200		8,100,000		26,000,000	
	91-20-3	Naphthalene	1,000	X		35,000		100,000		730		16,000,000		52,000,000	
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	83-32-9	Acephenanthrene	4,200			300,000		880,000		8,700		41,000,000		130,000,000	
	120-12-7	Anthracene	8,500			41,000		41,000		ID		230,000,000		730,000,000	
	56-55-3	Benzo(a)anthracene (Q)	18,000			NLL		NLL		NLL		20,000		80,000	
	205-99-2	Benzo(b)fluoranthene (Q)	23,000			NLL		NLL		NLL		20,000		80,000	
	207-08-9	Benzo(k)fluoranthene (Q)	8,800			NLL		NLL		NLL		200,000		800,000	
	191-24-2	Benzo(g,h,i)perylene	6,400			NLL		NLL		NLL		2,500,000		7,000,000	
	50-32-8	Benzo(a)pyrene (Q)	17,000			NLL		NLL		NLL		2,000		8,000	
	218-01-9	Chrysene (Q)	18,000			NLL		NLL		NLL		2,000,000		8,000,000	
	206-44-0	Fluoranthene	45,000			730,000		730,000		5,500		46,000,000		130,000,000	
	86-73-7	Fluorene	3,800			390,000		890,000		5,300		27,000,000		87,000,000	
	193-39-5	Indeno(1,2,3-cd)pyrene (Q)	7,600			NLL		NLL		NLL		20,000		80,000	
	91-20-3	Naphthalene	3,000			35,000		100,000		730		16,000,000		52,000,000	
	85-01-8	Phenanthrene	33,000			56,000		160,000		2,100		1,600,000		5,200,000	
	129-00-0	Pyrene	33,000			480,000		480,000		ID		29,000,000		84,000,000	
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	72-54-8	4-4'-DDD	110			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	200			NLL		NLL		NLL		45,000		190,000	
	789-02-6	2-4'-DDT	89			NA		NA		NA		NA		NA	
	50-29-3	4-4'-DDT	350			NLL		NLL		NLL		57,000		280,000	
	1336-36-3	Polychlorinated biphenyls [PCBs] (J,T)	1,100	JD,T,Y21		NLL		NLL		NLL		4,000	T	16,000	T
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
	7440-36-0	Antimony	13			4.3		4.3		94	X	180		670	
	7440-38-2	Arsenic	21	A09		5.8		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	600			75		1,300		440	G	37,000		130,000	
	7440-43-9	Cadmium (B)	12			1.2		6.0		6.0	G,X	550		2,100	
	7440-47-3	Chromium [Total] (H)	58			18		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	10			6.8		0.8		2.0		2,600		9,000	
	7440-50-8	Copper (B)	1,500	A09		32		5,800		75	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	1.2			0.39		4.0		4.0		0.10		12	
	7439-89-6	Iron (B)	41,000	A09		12,000		6.0		6.0		NA		160,000	580,000
	7439-92-1	Lead (B)	940			21		700		700	G,X	400		900	DD
	7439-96-5	Manganese (B)	620			440		1.0		1.0	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.50			0.13		1.7		1.7	M	160		580	
	7439-98-7	Molybdenum (B)	13	A09				1.5		4.2		64	X	2,600	9,600
	7440-02-0	Nickel (B)	45			20		100		100	G	40,000		150,000	
	7440-22-4	Silver (B)	39	A09		1.0		4.5		13	M	2,500		9,000	
	7440-62-2	Vanadium	20					72		990		750	DD	5,500	DD
	7440-66-6	Zinc (B)	1,000			47		2,400		5,000	G	170,000		630,000	

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**TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Contact					
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes	
SB-2015-06		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		
	99-87-6	p-Isopropyl toluene	77			NA		NA		NA		NA		NA		
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		
	56-55-3	Benzo(a)anthracene (Q)	3,200			NLL		NLL		NLL		20,000		80,000		
	218-01-9	Chrysene (Q)	3,600			NLL		NLL		NLL		2,000,000		8,000,000		
	206-44-0	Fluoranthene	8,100			730,000		730,000		5,500		46,000,000		130,000,000		
	85-01-8	Phenanthrene	4,100			56,000		160,000		2,100		1,600,000		5,200,000		
	129-00-0	Pyrene	5,300			480,000		480,000		ID		29,000,000		84,000,000		
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		
	72-54-8	4-4'-DDD	74	T		NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	2,200			NLL		NLL		NLL		45,000		190,000		
	789-02-6	2-4'-DDT	280			NA		NA		NA		NA		NA		
	50-29-3	4-4'-DDT	890			NLL		NLL		NLL		57,000		280,000		
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		
	7440-36-0	Antimony	0.90					4.3		4.3		94	X	180		670
	7440-38-2	Arsenic	12	A09	5.8		4.6		4.6		4.6		7.6		37	
	7440-39-3	Barium (B)	210		75		1,300		1,300		440	G	37,000		130,000	
	7440-47-3	Chromium [Total] (H)	23		18		30		30		3.3		2,500		9,200	
	7440-48-4	Cobalt	5.8		6.8		0.8		2.0		2.0		2,600		9,000	
	7440-50-8	Copper (B)	250	A09	32		5,800		5,800		75	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	0.40		0.39		4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	18,000	A09	12,000		6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	1,900		21		700		700		2,500	G,X	400		900	DD
	7439-96-5	Manganese (B)	300		440		1.0		1.0		56	G,X	25,000		90,000	
	7439-97-6	Mercury [Total] (B,Z)	0.20		0.13		1.7		1.7		0.05	M	160		580	
	7439-98-7	Molybdenum (B)	1.8	A09			1.5		4.2		64	X	2,600		9,600	
7440-02-0	Nickel (B)	17		20		100		100		76	G	40,000		150,000		
7440-62-2	Vanadium	18				72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	160		47		2,400		5,000		170	G	170,000		630,000		

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**TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Contact								
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes		
SB-2015-07		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )					
		No volatile organic compounds detected above reporting limits.															
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
		No semi-volatile organic compounds detected above reporting limits.															
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )			
	72-54-8	4-4'-DDD	24				NLL		NLL		NLL		95,000		400,000		
	72-55-9	4-4'-DDE	90				NLL		NLL		NLL		45,000		190,000		
	789-02-6	2-4'-DDT	8.4	T			NA		NA		NA		NA		NA		
	50-29-3	4-4'-DDT	56				NLL		NLL		NLL		57,000		280,000		
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
	7440-38-2	Arsenic	9.9	A09	5.8	4.6	4.6		4.6		4.6		7.6		37		
	7440-39-3	Barium (B)	23		75	1,300	1,300		440	G	37,000		130,000				
	7440-48-4	Cobalt	6.3		6.8	0.8	2.0		2.0		2,600		9,000				
	7440-50-8	Copper (B)	14	A09	32	5,800	5,800		75	G	20,000		73,000				
	7439-89-6	Iron (B)	15,000	A09	12,000	6.0	6.0		NA		160,000		580,000				
	7439-92-1	Lead (B)	10		21	700	700		2,500	G,X	400		900	DD			
7439-96-5	Manganese (B)	230		440	1.0	1.0		56	G,X	25,000		90,000					
7440-02-0	Nickel (B)	17		20	100	100		76	G	40,000		150,000					
7440-62-2	Vanadium	19			72	990		430		750	DD	5,500	DD		DD		
7440-66-6	Zinc (B)	40		47	2,400	5,000		170	G	170,000		630,000					

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SOIL BORING SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection						Contact			
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-08		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	72-54-8	4-4'-DDD	5.7	T		NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	5.1	T		NLL		NLL		NLL		45,000		190,000	
	50-29-3	4-4'-DDT	6.3	T		NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	7440-39-3	Barium (B)	26	A09	75	1,300		1,300		440	G	37,000		130,000	
	7440-50-8	Copper (B)	11	A09	32	5,800		5,800		75	G	20,000		73,000	
	7439-89-6	Iron (B)	10,000		12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	22		21	700		700		2,500	G,X	400		900	DD
	7439-96-5	Manganese (B)	280		440	1.0		1.0		56	G,X	25,000		90,000	
	7440-02-0	Nickel (B)	12		20	100		100		76	G	40,000		150,000	
7440-62-2	Vanadium	16			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	39		47	2,400		5,000		170	G	170,000		630,000		
SB-2015-09		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	72-54-8	4-4'-DDD	1,900			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	1,200			NLL		NLL		NLL		45,000		190,000	
	789-02-6	2-4'-DDT	51	T,Y21		NA		NA		NA		NA		NA	
	50-29-3	4-4'-DDT	150	T,Y21		NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	7440-39-3	Barium (B)	13		75	1,300		1,300		440	G	37,000		130,000	
	7439-89-6	Iron (B)	5,700	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	26		21	700		700		2,500	G,X	400		900	DD
	7439-96-5	Manganese (B)	140		440	1.0		1.0		56	G,X	25,000		90,000	
	7440-66-6	Zinc (B)	24		47	2,400		5,000		170	G	170,000		630,000	

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**TABLE 4  
SOIL BORING SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection						Contact			
						Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-2015-10		<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No volatile organic compounds detected above reporting limits.													
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
		No semi-volatile organic compounds detected above reporting limits.													
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	
	57-74-9	Chlordane (J)	41			NLL		NLL		NLL		31,000		150,000	
	72-54-8	4-4'-DDD	660			NLL		NLL		NLL		95,000		400,000	
	72-55-9	4-4'-DDE	1,700			NLL		NLL		NLL		45,000		190,000	
	789-02-6	2-4'-DDT	2,500			NA		NA		NA		NA		NA	
	50-29-3	4-4'-DDT	1,100			NLL		NLL		NLL		57,000		280,000	
		<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	
	7440-36-0	Antimony	0.70	A03		4.3		4.3		94	X	180		670	
	7440-39-3	Barium (B)	110		75	1,300		1,300		440	G	37,000		130,000	
	7440-43-9	Cadmium (B)	1.4		1.2	6.0		6.0		3.6	G,X	550		2,100	
	7440-50-8	Copper (B)	29	A09	32	5,800		5,800		75	G	20,000		73,000	
	57-12-5	Cyanide (P,R)	1.8		0.39	4.0		4.0		0.10		12		250	
	7439-89-6	Iron (B)	14,000	A09	12,000	6.0		6.0		NA		160,000		580,000	
	7439-92-1	Lead (B)	180		21	700		700		2,500	G,X	400		900	DD
	7439-96-5	Manganese (B)	250	A04	440	1.0		1.0		56	G,X	25,000		90,000	
	7439-98-7	Molybdenum (B)	1.3	A04,A09		1.5		4.2		64	X	2,600		9,600	
7440-02-0	Nickel (B)	13		20	100		100		76	G	40,000		150,000		
7440-62-2	Vanadium	18			72		990		430		750	DD	5,500	DD	
7440-66-6	Zinc (B)	340		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g/kg}$  = microgram/kilogram     $\text{mg/kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 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
	Easting	Northing				
TMW-01 (6-7')	737034.64	239246.55	Very turbid	Cond = N/A pH = N/A T = N/A ORP = N/A TDS = N/A	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Immediately purged dry; very slow recharge. Allow well to recharge several times to obtain sufficient volume for sample; sampled groundwater for methane only. Corresponding soil boring SB-2015-01.
TMW-01 (10-11')	737034.64	239246.55	Clear	Cond = 2422 pH = 6.97 T = 14.2 ORP = -67 TDS = 1864	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Corresponding soil boring SB-2015-01.
TMW-02 (4.5-5.5')	737211.99	239273.86	Clear	Cond = N/A pH = N/A T = N/A ORP = N/A TDS = N/A	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	See Table 3 for the soil boring log for TMW-02; (No soil boring sample collected.) Purge dry; no recharge; no vapor and no groundwater sample collected.
TMW-02 (13-14')	737211.99	239273.86	Clear	Cond = 2364 pH = 6.95 T = 12.5 ORP = -122 TDS = 1754	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	See Table 3 for the soil boring log for TMW-02; (No soil boring sample collected.) Duplicate sample collected.

**TABLE 5**

**TEMPORARY MONITORING WELL SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	PHYSICAL PARAMETERS	WELL CONSTRUCTION	COMMENTS
	Easting	Northing				
TMW-03 (15-16')	737218.80	239119.62	Slightly silty	Cond = 719 pH = 7.37 T = 12.3 ORP = -94 TDS = 518	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	MS/MSD collected.  Corresponding soil boring SB-2015-03.
TMW-04 (5-6')	737115.28	239147.55	Very silty	Cond = N/A pH = N/A T = N/A ORP = N/A TDS = N/A	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Allow well to recharge several times to obtain sufficient volume for sample; sampled for methane only. Corresponding soil boring SB-2015-04.
TMW-04 (6-7')	737115.28	239147.55	Very silty	Cond = N/A pH = N/A T = N/A ORP = N/A TDS = N/A	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Purged dry; collected a vapor sample only. Corresponding soil boring SB-2015-04.
TMW-05 (23-24')	737181.83	239069.24	Clear	Cond = 1061 pH = 7.05 T = 17.2 ORP = -43 TDS = 769	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Allow well to recharge several times to obtain sufficient volume for sample. Corresponding soil boring SB-2015-10.
TMW-06 (20-21')	737124.84	239050.99	Silty	Cond = 2597 pH = 5.95 T = 11.7 ORP = -26 TDS = 1900	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Purged dry, allow to recharge; sampled for methane only. Corresponding soil boring SB-2015-07.

**TABLE 5**

**TEMPORARY MONITORING WELL SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	PHYSICAL PARAMETERS	WELL CONSTRUCTION	COMMENTS
	Easting	Northing				
TMW-07 (17-18')	737051.44	239047.39	Very cloudy	Cond = 1494 pH = 6.90 T = 11.9 ORP = -41 TDS = 1076	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Purged dry, allow to recharge; sampled for methane only. Corresponding soil boring SB- 2015-05..
TMW-08 (19-20')	737070.33	239034.56	Slightly cloudy	Cond = 2052 pH = 6.36 T = 12.4 ORP = 100 TDS = 1512	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Purged dry, allow to recharge; sampled for methane only. Corresponding soil boring SB- 2015-06.
TMW-09 (12-13')	736935.74	238921.98	Slightly cloudy	Cond = 2044 pH = 6.74 T = 13.7 ORP = -105 TDS = 1500	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Purged dry, allow to recharge; sampled for methane only. Corresponding soil boring SB- 2015-09.
TMW-10 (6.5-7.5')	736913.10	238963.95	Clear	Cond = 1164 pH = 6.86 T = 15.2 ORP = -128 TDS = 822	Casing: 1 in. PVC Screen: 1 in. PVC, 1 ft. length, #10 slot	Corresponding soil boring SB- 2015-08.

Location Coordinates: Michigan GeoRef, NAD 1983, Meters

Cond = Conductivity ( $\mu\text{s}/\text{cm}$ )

pH = Hydrogen Ionization Potential

T = Temperature ( $^{\circ}\text{C}$ )

ORP = Oxidation Reduction Potential (millivolts)

TDS = Total Dissolved Solids (ppm – parts per million)

**TABLE 6**  
**TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-01 (6-7')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	74-82-8	Methane	21	T			ID		ID		NA	
TMW-01 (10-11')		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-39-3	Barium (B)	210				2,000	A	2,000	A	670	G
	7440-50-8	Copper (B)	33				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	160				300	E	300	E	NA	
7439-96-5	Manganese (B)	160				50	E	50	E	2,800	G,X	
7440-02-0	Nickel (B)	9.7				100	A	100	A	73	G	
7440-66-6	Zinc (B)	9.5				2,400		5,000	E	170	G	
		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
74-82-8	Methane	25				ID		ID		NA		

$\mu\text{g/l}$  = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

**TABLE 6**  
**TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-02 (13-14')		<b>VOLATILES</b>	(µg/l)		(µg/l)		(µg/l)		(µg/l)		(µg/l)	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	(µg/l)		(µg/l)		(µg/l)		(µg/l)		(µg/l)	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES/PCBS</b>	(µg/l)		(µg/l)		(µg/l)		(µg/l)		(µg/l)	
		No pesticides/PCBs compounds detected above reporting limits.										
		<b>INORGANICS</b>	(µg/l)		(µg/l)		(µg/l)		(µg/l)		(µg/l)	
	7440-38-2	Arsenic	6.5				10	A	10	A	10	
	7440-39-3	Barium (B)	320				2,000	A	2,000	A	670	G
	7440-47-3	Chromium [Total] (H)	2.6				100	A	100	A	11	
	7440-50-8	Copper (B)	5.0				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	7,600				300	E	300	E	NA	
	7439-92-1	Lead (B)	2.3				4.0	L	4.0	L	16	G,X
	7439-96-5	Manganese (B)	200				50	E	50	E	2,800	G,X
7440-02-0	Nickel (B)	17				100	A	100	A	73	G	
7440-62-2	Vanadium	5.7				4.5		62		27		
7440-66-6	Zinc (B)	24				2,400		5,000	E	170	G	
	<b>ORGANICS-METHANE</b>	(µg/l)		(µg/l)		(µg/l)		(µg/l)		(µg/l)		
74-82-8	Methane	27				ID		ID		NA		

µg/l = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

**TABLE 6  
 TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-02 (13-14') DUP		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides/PCBs compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-38-2	Arsenic	6.1				10	A	10	A	10	
	7440-39-3	Barium (B)	310				2,000	A	2,000	A	670	G
	7440-41-7	Beryllium					4.0	A	4.0	A	6.7	G
	7440-47-3	Chromium [Total] (H)	2.6				100	A	100	A	11	
	7440-50-8	Copper (B)	3.3				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	7,600				300	E	300	E	NA	
	7439-92-1	Lead (B)	2.0				4.0	L	4.0	L	16	G,X
	7439-96-5	Manganese (B)	230				50	E	50	E	2,800	G,X
	7440-02-0	Nickel (B)	17				100	A	100	A	73	G
	7440-62-2	Vanadium	5.3				4.5		62		27	
7440-66-6	Zinc (B)	17				2,400		5,000	E	170	G	
	<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		
74-82-8	Methane	15				ID		ID		NA		

$\mu\text{g/l}$  = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

Tree Farm  
 Sept. 3, Sept. 30, and Oct. 1, 2015

**TABLE 6**  
**TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-03 (15-16')		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-38-2	Arsenic	14				10	A	10	A	10	
	7440-39-3	Barium (B)	180				2,000	A	2,000	A	670	G
	7440-47-3	Chromium [Total] (H)	2.4				100	A	100	A	11	
	7440-50-8	Copper (B)	14	A0			1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	6,200				300	E	300	E	NA	
	7439-92-1	Lead (B)	2.6	X3			4.0	L	4.0	L	16	G,X
	7439-96-5	Manganese (B)	170				50	E	50	E	2,800	G,X
7440-02-0	Nickel (B)	8.5				100	A	100	A	73	G	
7440-62-2	Vanadium	5.8				4.5		62		27		
7440-66-6	Zinc (B)	18				2,400		5,000	E	170	G	
	<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		
74-82-8	Methane	16				ID		ID		NA		
<b>TMW-04</b> (5-6')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
74-82-8	Methane	100				ID		ID		NA		

$\mu\text{g/l}$  = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.



**TABLE 6**  
**TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-05 (23-24')	<b>VOLATILES</b>		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	No volatile organic compounds detected above reporting limits.											
	<b>SEMI-VOLATILES</b>		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	No semi-volatile organic compounds detected above reporting limits.											
	<b>PESTICIDES</b>		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	789-02-6	2-4'-DDT	0.006	T			NA		NA		NA	
	72-54-8	4-4'-DDD	0.038				9.1		37		NA	
	72-55-9	4-4'-DDE	0.008	T			4.3		15		NA	
	50-29-3	4-4'-DDT	0.039				3.6		10		0.02	M
	<b>INORGANICS</b>		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-38-2	Arsenic	5.2				10	A	10	A	10	
	7440-39-3	Barium (B)	93				2,000	A	2,000	A	670	G
	7440-47-3	Chromium [Total] (H)	6.7				100	A	100	A	11	
	7440-50-8	Copper (B)	14				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	9,900				300	E	300	E	NA	
	7439-92-1	Lead (B)	5.7				4.0	L	4.0	L	16	G,X
	7439-96-5	Manganese (B)	290				50	E	50	E	2,800	G,X
	7439-98-7	Molybdenum (B)	10				73		210		3,200	X
	7440-02-0	Nickel (B)	13				100	A	100	A	73	G
	7440-62-2	Vanadium	11				4.5		62		27	
7440-66-6	Zinc (B)	31				2,400		5,000	E	170	G	
<b>ORGANICS-METHANE</b>		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		
74-82-8	Methane	24				ID		ID		NA		

$\mu\text{g/l}$  = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

**TABLE 6**  
**TEMPORARY MONITORING WELL SAMPLE DATA SUMMARY**

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
TMW-06 (20-21')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	74-82-8	Methane	18				ID		ID		NA	
TMW-07 (17-18')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	74-82-8	Methane	19				ID		ID		NA	
TMW-08 (19-20')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No organics/methane compounds detected above reporting limits.										
TMW-09 (12-13')		<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	74-82-8	Methane	6,200				ID		ID		NA	
TMW-10 (6.5-7.5')		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES/PCBS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides/PCBs compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		7440-38-2 Arsenic	11				10	A	10	A	10	
	7440-39-3 Barium (B)	82				2,000	A	2,000	A	670	G	
	7439-89-6 Iron (B)	11,000				300	E	300	E	NA		
	7439-96-5 Manganese (B)	440				50	E	50	E	2,800	G,X	
	7440-02-0 Nickel (B)	7.3				100	A	100	A	73	G	
	<b>ORGANICS-METHANE</b>	( $\mu\text{g/l}$ )			( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	74-82-8 Methane	8,300					ID		ID		NA	

$\mu\text{g/l}$  = microgram/liter

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

Tree Farm  
 Sept. 2 and Oct. 1, 2015

**TABLE 7**  
**SOIL GAS SAMPLE DESCRIPTIONS AND DATA SUMMARY**

SAMPLE NUMBER	Data collected during soil gas sampling						Methane (Air/Vapor - Laboratory Results)
	GEM, percent			GEM, ppm		Field Notes	
	O2	CO2	CH4	H2S	CO		
SGP-01 (3-4')	21.5	0.4	0	0	0		Non Detect (ND)
SGP-02 (2.5-3.5')	20.3	1.1	0	0	0		150 parts per million by volume (ppmv)
SGP-03 (4.5-5.5')	2.6	16.6	0.1	0	0		ND
SGP-04 (3-4')	18.9	2.5	0.1	0	0		ND
SGP-05 (5-6')	16.0	4.6	0.1	0	0		ND
SGP-06 (6-7')	19.3	1.7	0.1	0	1		ND
SGP-07 (4-5')	19.5	3.6	0	0	0		ND
SGP-08 (9-10')	9.0	12.8	0.1	0	2		ND
SGP-09 (3.5-4.5')	18.4	2.8	0	0	0		35,000 ppmv
SGP-10 (2.5-3.5')	0.0	7.3	31.1	0	0		210,000 ppmv
TMW-01 (6-7')	21.1	0.3	0	6	57		No Vapor Sample Collected
TMW-01 (10-11')	21.7	0	0	0	0		18 ppmv
TMW-02 (4.5-5.5')						Pump failure on GEM, no readings.	No Vapor Sample Collected
TMW-02 (13-14')	20.9	1.3	0	0	0		ND
TMW-03 (15-16')	2.8	15.9	0.1	0	0		.70 ppmv
TMW-04 (5-6')						No GEM reading due to water.	ND
TMW-04 (6-7')	18.9	2.6	0	0	0		No Vapor Sample Collected
TMW-05 (23-24')	16.8	1.9	0.1	9	984		ND
TMW-06 (20-21')	17.4	1.8	0.1	2	181		ND
TMW-07 (17-18')	19.6	2.8	0	0	0		ND
TMW-08 (19-20')	9.7	9.3	0.1	0	9		ND
TMW-09 (12-13')	1.1	12.5	19.5	0	1		7,800 ppmv
TMW-10 (6.5-7.5')	0.5	8.7	29.1	0	0		No Vapor Sample Collected

Notes:

Samples were collected Sept.-Oct., 2015.

Sample depth is indicated by the sample name. For example, sample SGP-01 (3-4') was collected at a depth of 3 to 4 feet.

O2 is oxygen, CO2 is carbon dioxide, CH4 is methane, H2S is hydrogen sulfide, CO is carbon monoxide

**TABLE 8**  
**SURFACE WATER SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	DEPTH OF WATER AT SAMPLE LOCATION	PHYSICAL PARAMETERS	COMMENTS
	Easting	Northing				
SW-2015-01	737103.66	238987.62	Clear	0 inches, because surface water sample was collected at discharge pipe that flows into the Honeywell Ditch.	Cond = 1405 pH = 6.99 T = 13.2 TDS = 1013	Water flowing, filled 250 mL plastic bottle and then used that to fill all sample bottles except the 40 mL vials, which were filled directly from the flowing water.  Corresponding sediment sample SD-2015-01.  MS/MSD collected.
SW-2015-02	736980.69	238897.50	Clear with floating fine litter, leaf litter.	2 inches	Cond = 1388 pH = 6.74 T = 16.4 TDS = 1001	Corresponding sediment sample SD-2015-02.  Duplicate collected.

Location Coordinates: Michigan GeoRef, NAD 1983, Meters

Cond = Conductivity ( $\mu\text{s}/\text{cm}$ )

pH = Hydrogen Ionization Potential

T = Temperature ( $^{\circ}\text{C}$ )

TDS = Total Dissolved Solids (ppm – parts per million)

TABLE 9  
SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	CAS Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Background Sample Concentration	Qualifiers	Residential Drinking Water Criteria	Footnotes	Nonresidential Drinking Water Criteria	Footnotes	Groundwater Surface Water Interface Criteria	Footnotes
SW-2015-01		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-39-3	Barium (B)	120				2,000	A	2,000	A	670	G
	7440-50-8	Copper (B)	2.6				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	1,100				300	E	300	E	NA	
7439-96-5	Manganese (B)	170				50	E	50	E	2,800	G,X	
7440-02-0	Nickel (B)	10				100	A	100	A	73	G	
7782-49-2	Selenium (B)	1.0				50	A	50	A	5.0		
7440-66-6	Zinc (B)	12				2,400		5,000	E	170	G	
SW-2015-02		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-39-3	Barium (B)	46				2,000	A	2,000	A	670	G
	7440-50-8	Copper (B)	4.3				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	350				300	E	300	E	NA	
7439-96-5	Manganese (B)	410				50	E	50	E	2,800	G,X	
7440-02-0	Nickel (B)	4.6				100	A	100	A	73	G	
SW-2015-02 DUP		<b>VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No volatile organic compounds detected above reporting limits.										
		<b>SEMI-VOLATILES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No semi-volatile organic compounds detected above reporting limits.										
		<b>PESTICIDES</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
		No pesticides compounds detected above reporting limits.										
		<b>INORGANICS</b>	( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )		( $\mu\text{g/l}$ )	
	7440-39-3	Barium (B)	43				2,000	A	2,000	A	670	G
	7440-50-8	Copper (B)	6.3				1,000	E	1,000	E	13	G
	7439-89-6	Iron (B)	320				300	E	300	E	NA	
7439-96-5	Manganese (B)	380				50	E	50	E	2,800	G,X	
7440-02-0	Nickel (B)	4.4				100	A	100	A	73	G	

$\mu\text{g/kg}$  = microgram/kilogram

Qualifier definitions in Appendix B. Footnote definitions in Appendix C.

Shaded Criteria indicate an exceedance.

A blank Default Background column means that value has not been determined.

**TABLE 10**  
**SEDIMENT SAMPLE DESCRIPTIONS**

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH OF WATER AT SAMPLE LOCATION	DEPTH OF SAMPLE	DESCRIPTION	COMMENTS
	Easting	Northing				
SD-2015-01	737103.66	238987.62	1 in.	0-3 in.	0-3 in. - Wet, gray, silty clay with some fine sand and some gravel.	Collected sample with stainless steel trowel below discharge pipe.  MS/MSD collected.  Corresponding surface water sample SW-2015-01.
SD-2015-02	736980.69	238897.50	2 in.	0-4 in.	0-1 in. - Wet, black-brown muck with fine sand, decomposing plant matter, leaves, twigs and fine sand.  1-4 in. - Wet, gray, sandy silt.	Collected sample with stainless steel sediment corer.  Duplicate collected.  Corresponding surface water sample SW-2015-02.

Location Coordinates: Michigan GeoRef, NAD 1983, Meters



TABLE 11  
SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS										
				USEPA Region 5 RCRA Ecological Screening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Effects Range Low (Long & Morgan 1991)	Consensus-Based Threshold Effect Concentration (McDonald et. al. 2000)	Probable Effect Level (Smith et. al. 1996)	Toxic Effect Threshold (EC & MENVIQ 1992)	Effects Range Median (Long & Morgan 1991)	
SD-2015-01	<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No volatile organic compounds detected above reporting limits.													
	<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No semi-volatile organic compounds detected above reporting limits.													
	<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No pesticides/PCBs compounds detected above reporting limits.													
	<b>INORGANICS</b>	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	7440-38-2 Arsenic	6.0	A09	9.79	u	5.9	6.0	7.0	33	9.79	17	17	85	
	7440-39-3 Barium (B)	19		NG		NG	NG	NG	NG	NG	NG	NG	NG	
	7440-48-4 Cobalt	5.8		50		NG	NG	NG	NG	NG	NG	NG	NG	
	7440-50-8 Copper (B)	12	A09	31.6	u	35.7	16	28	70	31.6	197	86	390	
	7439-89-6 Iron (B)	3,500	A09, X3	NG		NG	NG	NG	NG	NG	NG	NG	NG	
	7439-92-1 Lead (B)	6.1		35.8	u	35	31	42	35	35.8	91.3	170	110	
	7439-96-5 Manganese (B)	470		NG		NG	NG	NG	NG	NG	NG	NG	NG	
	7439-98-7 Molybdenum (B)	1.1	A09	NG		NG	NG	NG	NG	NG	NG	NG	NG	
7440-02-0 Nickel (B)	16		22.7	u	18	16	35	30	22.7	36	61	50		
7440-62-2 Vanadium	20		NG		NG	NG	NG	NG	NG	NG	NG	NG		
7440-66-6 Zinc (B)	38		121	u	123	120	150	120	121	315	540	270		
SD-2015-02	<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No volatile organic compounds detected above reporting limits.													
	<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No semi-volatile organic compounds detected above reporting limits.													
	<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	72-54-8 4-4'-DDD	24	T	4.88	uz	3.54	8.0	10	2.0	4.88	8.51	60	20	
	72-55-9 4-4'-DDE	27	T	3.16	u	1.42	5.0	7.0	2.0	3.16	6.75	50	15	
	50-29-3 4-4'-DDT	52	T, Y21	4.16	u	NG	8.0	9.0	1.0	4.16	NG	50	7.0	
	<b>INORGANICS</b>	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	7440-38-2 Arsenic	5.4	A09	9.79	u	5.9	6.0	7.0	33	9.79	17	17	85	
	7440-39-3 Barium (B)	43		NG		NG	NG	NG	NG	NG	NG	NG	NG	
	7440-50-8 Copper (B)	10	A09	31.6	u	35.7	16	28	70	31.6	197	86	390	
	7439-89-6 Iron (B)	14,000	A09	NG		NG	NG	NG	NG	NG	NG	NG	NG	
	7439-92-1 Lead (B)	11		35.8	u	35	31	42	35	35.8	91.3	170	110	
	7439-96-5 Manganese (B)	1,300		NG		NG	NG	NG	NG	NG	NG	NG	NG	
7440-02-0 Nickel (B)	14		22.7	u	18	16	35	30	22.7	36	61	50		
7440-62-2 Vanadium	16		NG		NG	NG	NG	NG	NG	NG	NG	NG		
7440-66-6 Zinc (B)	43		121	u	123	120	150	120	121	315	540	270		

$\mu\text{g/kg}$  = microgram/kilogram     $\text{mg/kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 Shaded Criteria indicate an exceedance.  
 A blank Default Background column means that value has not been determined.

TABLE 11  
SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS									
				USEPA Region 5 RCRA Ecological Scening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Effects Range Low (Long & Morgan 1991)	Concensus-Based Threshold Effect Concentration (McDonald et. al. 2000)	Probable Effect Level (Smith et. al. 1996)	Toxic Effect Threshold (EC & MENVIQ 1992)	Effects Range Median (Long & Morgan 1991)
SD-2015-02	<b>VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
DUP	No volatile organic compounds detected above reporting limits.												
	<b>SEMI-VOLATILES</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
	No semi-volatile organic compounds detected above reporting limits.												
	<b>PESTICIDES/PCBS</b>	( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )		( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )	( $\mu\text{g/kg}$ )
72-54-8	4-4'-DDD	26	T	4.88	uz	3.54	8.0	10	2.0	4.88	8.51	60	20
72-55-9	4-4'-DDE	29	T	3.16	u	1.42	5.0	7.0	2.0	3.16	6.75	50	15
50-29-3	4-4'-DDT	50	T, Y21	4.16	u	NG	8.0	9.0	1.0	4.16	NG	50	7.0
	<b>INORGANICS</b>	( $\text{mg/kg}$ )		( $\text{mg/kg}$ )		( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )	( $\text{mg/kg}$ )
7440-38-2	Arsenic	5.6	A09	9.79	u	5.9	6.0	7.0	33	9.79	17	17	85
7440-39-3	Barium (B)	50		NG		NG	NG	NG	NG	NG	NG	NG	NG
7440-43-9	Cadmium (B)	0.30		0.99	u	0.596	0.6	0.9	5.0	0.99	3.53	3.0	9.0
7440-48-4	Cobalt	5.6		50		NG	NG	NG	NG	NG	NG	NG	NG
7440-50-8	Copper (B)	10	A09	31.6	u	35.7	16	28	70	31.6	197	86	390
7439-89-6	Iron (B)	17,000	A09	NG		NG	NG	NG	NG	NG	NG	NG	NG
7439-92-1	Lead (B)	13		35.8	u	35	31	42	35	35.8	91.3	170	110
7439-96-5	Manganese (B)	1,700		NG		NG	NG	NG	NG	NG	NG	NG	NG
7440-02-0	Nickel (B)	16		22.7	u	18	16	35	30	22.7	36	61	50
7440-62-2	Vanadium	17		NG		NG	NG	NG	NG	NG	NG	NG	NG
7440-66-6	Zinc (B)	48		121	u	123	120	150	120	121	315	540	270

$\mu\text{g/kg}$  = microgram/kilogram  $\text{mg/kg}$  = milligram/kilogram  
 Qualifier definitions in Appendix B. Footnote definitions in Appendix C.  
 Shaded Criteria indicate an exceedance.  
 A blank Default Background column means that value has not been determined.



**APPENDIX A**

**BFRA PROPERTY PHOTOGRAPHS**



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 1 OF: 6

DATE: 6-2-15

DIRECTION OF  
PHOTOGRAPH:  
S

PHOTOGRAPH BY:  
TAD



DESCRIPTION: View of entrance gate of the Tree Farm property from Avon Road.

DATE: 6-2-15

DIRECTION OF  
PHOTOGRAPH:  
S

PHOTOGRAPH BY:  
TAD



DESCRIPTION: View of driveway from entrance gate of the Tree Farm property along Avon Road.



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 2 OF: 6

DATE: 6-2-15

DIRECTION OF  
PHOTOGRAPH:  
W

PHOTOGRAPH BY:  
TAD



DESCRIPTION: View of powerline along the north side of the property, near the entrance of the Tree Farm property.

DATE: 6-2-15

DIRECTION OF  
PHOTOGRAPH:  
E

PHOTOGRAPH BY:  
TAD



DESCRIPTION: View of 55-gallon, open, metal drum by the entrance gate of the Tree Farm property.



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 3 OF: 6

DATE: 6-2-15

DIRECTION OF PHOTOGRAPH:  
S

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Fill area near the southwest corner of the Tree Farm property.

DATE: 8-26-15

DIRECTION OF PHOTOGRAPH:  
W

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Surface runoff near fill areas on the south side of Tree Farm property.



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 4 OF: 6

DATE: 8-26-15

DIRECTION OF PHOTOGRAPH:  
N

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Discharge pipe along the Honeywell Ditch on south side of the Tree Farm property.

DATE: 8-26-15

DIRECTION OF PHOTOGRAPH:  
N

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Close-up of discharge pipe along the Honeywell Ditch on south side of the Tree Farm property.



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 5 OF: 6

DATE: 8-25-15

DIRECTION OF PHOTOGRAPH:  
NW

PHOTOGRAPH BY:  
AD



DESCRIPTION: Surface debris near surficial soil sample location on the Tree Farm property.

DATE: 8-25-15

DIRECTION OF PHOTOGRAPH:  
S to ground

PHOTOGRAPH BY:  
JS



DESCRIPTION: Surface debris and protruding buried metal near surficial soil sample location on the Tree Farm property.



FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: Tree Farm  
U.S. EPA ID #: MIB000000196

PAGE: 6 OF: 6

DATE: 8-26-15

DIRECTION OF PHOTOGRAPH:  
N to ground

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Barren soil and dark bark at base of tree, near surficial soil sample location on the Tree Farm property.

DATE: 8-26-15

DIRECTION OF PHOTOGRAPH:  
SE

PHOTOGRAPH BY:  
TAD



DESCRIPTION: Barren soil, dark bark and roots at base of tree, and surface debris on the Tree Farm property.





**APPENDIX B**

**CHEMICAL ANALYSIS OF BFRA SAMPLES**



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

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

18 September 2015

Work Order: 1508223

Price: \$12,917.50

Teresa Ducsay  
MDEQ-RRD-LANSING  
525 W. Allegan Street  
Lansing, MI 48909  
RE: TREE FARM

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

George Krisztian  
Laboratory Director



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY**

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

MDEQ-RRD-LANSING  
525 W. Allegan Street  
Lansing MI, 48909

Project: TREE FARM  
Site Code: MIB000000196  
Project Manager: Teresa Ducsay

**Reported:**  
09/18/2015

**Analytical Report for Samples**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
SS-2015-01	1508223-01	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-02	1508223-02	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-02-DUP	1508223-03	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-03	1508223-04	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-03-MS	1508223-05	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-03-MSD	1508223-06	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-04	1508223-07	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-05	1508223-08	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-06	1508223-09	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-07	1508223-10	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-08	1508223-11	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-09	1508223-12	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-10	1508223-13	Soil/Sediment	08/25/2015	08/27/2015	
SS-2015-11	1508223-14	Soil/Sediment	08/26/2015	08/27/2015	
TRIP BLANK	1508223-15	Soil/Sediment	07/24/2015	08/27/2015	





### Notes and Definitions

- Y25 Sample extract would not concentrate to the normal volume causing raised reporting limits.
- Y21 Reporting Limits (RL) raised due to matrix interference.
- Y20 Reporting Limits (RL) raised due to matrix.
- Y09 Sample was received and extracted/analyzed past USEPA maximum allowable holding time. Data is estimated.
- X3 Spike recovery is not applicable due to large target analyte concentration in the source sample.
- 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 & 625 as semivolatile organics.
- V Value not available due to dilution.
- T Reported value is less than the reporting limit (RL). Result is estimated.
- JD Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
- A11 Result is estimated due to high initial verification standard criteria failure.
- A09 Result is estimated due to high recovery of batch quality control.
- A07 Result(s) and reporting limit(s) are estimated due to poor precision.
- A06 Result is estimated due to high continuing calibration standard criteria failure.
- A04 Result is estimated due to high matrix spike recovery.
- A03 Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
- ND Indicates compound analyzed for but not detected
- RL Reporting Limit
- NA Not Applicable
- dry Sample results reported on a dry weight basis



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FAX: (517) 335-9500

Client ID: SS-2015-01

Lab ID: 1508223-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
591-78-6	2-Hexanone	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/27/15	B5H2705	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
108-86-1	Bromobenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
74-83-9	Bromomethane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	



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<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
60-29-7	Diethyl ether	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/27/15	B5H2705	8260	
74-88-4	Methyl iodide	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-09-2	Methylene chloride	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
124-47-6	o-Xylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
106-97-6	p-Isopropyl toluene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/27/15	B5H2705	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	300	ug/kg dry	50	08/27/15	B5H2705	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/27/15	B5H2705	8260	
Surrogate: Bromofluorobenzene			130 %	40.3-194		08/27/15	B5H2705	8260	
Surrogate: Dibromofluoromethane			140 %	52.1-217		08/27/15	B5H2705	8260	
Surrogate: Toluene-d8			138 %	55.4-196		08/27/15	B5H2705	8260	



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Client ID: SS-2015-01

Lab ID: 1508223-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	38000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	38000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	11000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	15000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	11000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	11000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	38000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	Benzo[a]anthracene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	56000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	Chrysene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenzo[a,h]anthracene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	



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Lab ID: 1508223-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
84-66-2	Diethylphthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>3500</b>	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	22000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	5600	ug/kg dry	1	09/08/15	B5H2808	8270	
521-64-7	N-Nitrosodi-n-propylamine	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
5-30-6	N-Nitrosodiphenylamine	ND	4500	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	38000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>2200</b>	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	7400	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>3500</b>	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/08/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/08/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/08/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/08/15	B5H2808	8270	V





DEPARTMENT OF ENVIRONMENTAL QUALITY

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<b>Organics-Pesticides</b>									
									<b>See note Y20</b>
789-02-6	2,4'-DDT	49	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	81	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	280	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	180	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	45	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	110	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	110	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	560	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	380	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			63.4 %	30-150		09/09/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			70.7 %	30-150		09/09/15	B5H3117	8081/8082	



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

Client ID: SS-2015-01

Lab ID: 1508223-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
<b>See note Y20</b>									
12674-11-2	Aroclor 1016	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	220	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			63.4 %	30-150		09/09/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			70.7 %	30-150		09/09/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	89.3	0.1	%	1	08/27/15	B5H2709	2540.B	
57-12-5	Total Cyanide	0.12	0.11	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	0.4	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	5.2	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	90	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	0.7	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	ND	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	ND	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	19	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	11000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	70	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	210	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.06	0.06	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	
7439-98-7	Molybdenum	ND	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	12	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.1	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	17	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	120	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	





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Client ID: SS-2015-02

Lab ID: 1508223-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
71-55-6	1,1,1-Trichloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
79-00-5	1,1,2-Trichloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-34-3	1,1-Dichloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-35-4	1,1-Dichloroethylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
96-18-4	1,2,3-Trichloropropane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
106-93-4	1,2-Dibromoethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
95-50-1	1,2-Dichlorobenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
107-06-2	1,2-Dichloroethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
78-87-5	1,2-Dichloropropane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
541-73-1	1,3-Dichlorobenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
106-46-7	1,4-Dichlorobenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
78-93-3	2-Butanone (MEK)	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
591-78-6	2-Hexanone	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
91-57-6	2-Methylnaphthalene	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	08/27/15	B5H2705	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
107-13-1	Acrylonitrile	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
71-43-2	Benzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
108-86-1	Bromobenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
74-97-5	Bromochloromethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-27-4	Bromodichloromethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-25-2	Bromoform	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
74-83-9	Bromomethane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
75-15-0	Carbon disulfide	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
56-23-5	Carbon tetrachloride	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
108-90-7	Chlorobenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-00-3	Chloroethane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
67-66-3	Chloroform	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
74-87-3	Chloromethane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
110-82-7	Cyclohexane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
124-48-1	Dibromochloromethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-71-8	Dichlorodifluoromethane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
60-29-7	Diethyl ether	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
108-20-3	Diisopropyl Ether	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
100-41-4	Ethylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
637-92-3	Ethyltertiarybutylether	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
67-72-1	Hexachloroethane	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
98-82-8	Isopropylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
1330-20-7	m & p - Xylene	ND	160	ug/kg dry	50	08/27/15	B5H2705	8260	
74-88-4	Methyl iodide	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-09-2	Methylene chloride	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
1634-04-4	Methyltertiarybutylether	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
91-20-3	Naphthalene	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	X
104-51-8	n-Butylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
103-65-1	n-Propylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
95-47-6	o-Xylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
98-87-6	p-Isopropyl toluene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
135-98-8	sec-Butylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
100-42-5	Styrene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
98-06-6	tert-Butylbenzene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-65-0	tertiary Butyl Alcohol	ND	4000	ug/kg dry	50	08/27/15	B5H2705	8260	
994-05-8	tertiaryAmylmethylether	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
127-18-4	Tetrachloroethylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
109-99-9	Tetrahydrofuran	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
108-88-3	Toluene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	400	ug/kg dry	50	08/27/15	B5H2705	8260	
79-01-6	Trichloroethylene	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-69-4	Trichlorofluoromethane	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
75-01-4	Vinyl chloride	ND	79	ug/kg dry	50	08/27/15	B5H2705	8260	
Surrogate: Bromofluorobenzene			138 %	40.3-194		08/27/15	B5H2705	8260	
Surrogate: Dibromofluoromethane			152 %	52.1-217		08/27/15	B5H2705	8260	
Surrogate: Toluene-d8			148 %	55.4-196		08/27/15	B5H2705	8260	



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<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	44000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	44000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	17000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	44000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>1700</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	T
50-32-8	Benzo[a]pyrene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	<b>Benzo[b]fluoranthene</b>	<b>2700</b>	5100	ug/kg dry	1	09/08/15	B5H2808	8270	T
191-24-2	Benzo[g,h,i]perylene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	64000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>2100</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	T
53-70-3	Dibenz[a,h]anthracene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

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

Client ID: SS-2015-02

Lab ID: 1508223-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
84-66-2	Diethylphthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>3400</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	26000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6400	ug/kg dry	1	09/08/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
6-30-6	N-Nitrosodiphenylamine	ND	5100	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	44000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>1800</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	T
108-95-2	Phenol	ND	8500	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>3600</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/08/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/08/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/08/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/08/15	B5H2808	8270	V





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Client ID: SS-2015-02  
 Lab ID: 1508223-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
<b>See note Y20</b>									
789-02-6	2,4'-DDT	70	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	200	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	200	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	270	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	26	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	51	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	130	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	130	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	640	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	440	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			51.1 %	30-150		09/09/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			60.4 %	30-150		09/09/15	B5H3117	8081/8082	



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Lab ID: 1508223-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	See note Y20
11104-28-2	Aroclor 1221	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			51.1 %	30-150		09/09/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			60.4 %	30-150		09/09/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	78.0	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.41	0.13	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	1.7	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	5.9	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	130	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	1.1	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	40	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	ND	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	58	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	16000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	240	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	340	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.1	0.06	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	
7439-98-7	Molybdenum	2.1	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	17	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.6	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	19	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	230	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	


 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
 ENVIRONMENTAL LABORATORY

Client ID: SS-2015-02-DUP

Lab ID: 1508223-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1700	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	





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Lab ID: 1508223-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	170	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	4100	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amylmethylether	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	410	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	83	ug/kg dry	50	08/28/15	B5H2803	8260	
<i>Surrogate: Bromofluorobenzene</i>			143 %	40.3-194		08/28/15	B5H2803	8260	
<i>Surrogate: Dibromofluoromethane</i>			151 %	52.1-217		08/28/15	B5H2803	8260	
<i>Surrogate: Toluene-d8</i>			148 %	55.4-196		08/28/15	B5H2803	8260	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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Client ID: SS-2015-02-DUP

Lab ID: 1508223-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									<b>See note Y20, Y25</b>
120-82-1	1,2,4-Trichlorobenzene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	45000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	45000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	17000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	13000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	45000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>4100</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	<b>Benzo[b]fluoranthene</b>	<b>5900</b>	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	66000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>4900</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	


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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
84-66-2	Diethylphthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>7800</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	26000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6600	ug/kg dry	1	09/08/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
5-30-6	N-Nitrosodiphenylamine	ND	5200	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	45000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>4400</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	8700	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>8900</b>	2600	ug/kg dry	1	09/08/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/08/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/08/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/08/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/08/15	B5H2808	8270	V



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<b>Organics-Pesticides</b> <span style="float: right;">See note Y20</span>									
789-02-6	2,4'-DDT	72	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	210	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	250	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	320	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	26	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	52	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	130	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	130	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	660	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	450	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			57.2 %	30-150		09/09/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			67.4 %	30-150		09/09/15	B5H3117	8081/8082	



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<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	See note Y20
11104-28-2	Aroclor 1221	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	260	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			57.2 %	30-150		09/09/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			67.4 %	30-150		09/09/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	76.2	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.39	0.13	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	1.1	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	5.7	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	130	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	0.9	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	ND	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	ND	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	46	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	14000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	190	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	250	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.1	0.07	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	
7439-98-7	Molybdenum	1.5	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	15	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.6	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	17	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	200	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	





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<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1900	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	




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<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	190	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	4800	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amyl methyl ether	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	480	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	96	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			124 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			136 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			133 %	55.4-196		08/28/15	B5H2803	8260	



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Client ID: SS-2015-03

Lab ID: 1508223-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	19000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	<b>Anthracene</b>	<b>3600</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>20000</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
50-32-8	<b>Benzo[a]pyrene</b>	<b>17000</b>	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
205-99-2	<b>Benzo[b]fluoranthene</b>	<b>26000</b>	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
191-24-2	<b>Benzo[g,h,i]perylene</b>	<b>9500</b>	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	<b>Benzo[k]fluoranthene</b>	<b>7500</b>	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	71000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>20000</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
53-70-3	Dibenz[a,h]anthracene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									See note Y20, Y25
132-64-9	Dibenzofuran	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
84-66-2	Diethylphthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>38000</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
86-73-7	Fluorene	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	29000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	<b>Indeno(1,2,3-c,d)pyrene</b>	<b>9200</b>	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
77-75-9	N-Nitrosodimethylamine	ND	7100	ug/kg dry	1	09/08/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
86-30-6	N-Nitrosodiphenylamine	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>18000</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
108-95-2	Phenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>35000</b>	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/08/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/08/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/08/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/08/15	B5H2808	8270	V



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Lab ID: 1508223-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
									<b>See note Y20</b>
789-02-6	2,4'-DDT	1200	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	450	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-55-9	4,4'-DDE	3500	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	5600	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	570	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	A07
2385-85-5	Mirex	ND	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	14000	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	9700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl		Not Applicable		30-150		09/15/15	B5H3117	8081/8082	V
Surrogate: Tetrachloro-m-xylene		92.6%		30-150		09/15/15	B5H3117	8081/8082	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>		<i>Not Applicable</i>		<i>30-150</i>		<i>09/15/15</i>	<i>B5H3117</i>	<i>8081/8082</i>	<i>V</i>
<i>Surrogate: Tetrachloro-m-xylene</i>		<i>92.6 %</i>		<i>30-150</i>		<i>09/15/15</i>	<i>B5H3117</i>	<i>8081/8082</i>	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	70.0	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	1.7	0.14	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	8.4	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	39	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	760	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	X3
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	4.8	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	35	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	7.7	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	170	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	19000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	1100	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	X3
7439-96-5	Manganese	460	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7439-97-6	Mercury	1.0	0.07	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	A07
7439-98-7	Molybdenum	3.5	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	27	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	16	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	1.1	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	0.8	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	25	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	980	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3





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Client ID: SS-2015-03-MS

Lab ID: 1508223-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	5200	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	4400	96	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	4400	480	ug/kg dry	50	08/28/15	B5H2803	8260	A06
591-78-6	2-Hexanone	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	A06
91-57-6	2-Methylnaphthalene	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	4100	1900	ug/kg dry	50	08/28/15	B5H2803	8260	A06, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	4500	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	4500	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	5200	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	




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Lab ID: 1508223-05

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<b>Organics-Volatiles</b>									
10061-01-5	cis-1,3-Dichloropropylene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-95-3	Dibromomethane	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	4400	480	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	4900	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	4900	480	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	4800	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	9900	190	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	
534-04-4	Methyltertiarybutylether	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
1-20-3	Naphthalene	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	22000	4800	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amyl methylether	4800	480	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	4500	96	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	4400	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	4200	480	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			124 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			136 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			130 %	55.4-196		08/28/15	B5H2803	8260	



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Lab ID: 1508223-05

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<b>Organics-Semivolatiles</b>									
									<b>See note Y20, Y25</b>
120-82-1	1,2,4-Trichlorobenzene	3500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-95-4	2,4,5-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
88-06-2	2,4,6-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
120-83-2	2,4-Dichlorophenol	5800	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
105-67-9	2,4-Dimethylphenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
51-28-5	2,4-Dinitrophenol	21000	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
121-14-2	2,4-Dinitrotoluene	3600	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
606-20-2	2,6-Dinitrotoluene	3500	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
91-58-7	2-Chloronaphthalene	3800	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-57-8	2-Chlorophenol	6300	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
534-52-1	2-Methyl-4,6-dinitrophenol	3900	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
91-57-6	2-Methylnaphthalene	4000	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-48-7	2-Methylphenol (o-Cresol)	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
88-74-4	2-Nitroaniline	3100	14000	ug/kg dry	1	09/08/15	B5H2808	8270	T
88-75-5	2-Nitrophenol	6800	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
108394,106445	3 & 4-Methylphenol	ND	19000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	1500	14000	ug/kg dry	1	09/08/15	B5H2808	8270	T
101-55-3	4-Bromophenyl phenyl ether	4400	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
59-50-7	4-Chloro-3-methyl-phenol	ND	5700	ug/kg dry	1	09/08/15	B5H2808	8270	V
7005-72-3	4-Chlorodiphenylether	3900	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	1900	14000	ug/kg dry	1	09/08/15	B5H2808	8270	T
100-02-7	4-Nitrophenol	4200	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
83-32-9	Acenaphthene	4400	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	4500	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	7100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	4100	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
56-55-3	Benz[a]anthracene	17000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
50-32-8	Benzo[a]pyrene	17000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
205-99-2	Benzo[b]fluoranthene	23000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
191-24-2	Benzo[g,h,i]perylene	12000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	11000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	7000	71000	ug/kg dry	1	09/08/15	B5H2808	8270	T
111-91-1	Bis(2-chloroethoxy)methane	4100	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
111-44-4	Bis(2-chloroethyl)ether	3300	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	3400	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	4100	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
85-68-7	Butyl benzyl phthalate	4200	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
86-74-8	Carbazole	4800	7100	ug/kg dry	1	09/08/15	B5H2808	8270	


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<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
218-01-9	Chrysene	18000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
53-70-3	Dibenz[a,h]anthracene	6400	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	4500	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
84-66-2	Diethylphthalate	4000	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
131-11-3	Dimethyl phthalate	4000	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
84-74-2	Di-n-butyl phthalate	4100	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
117-84-0	Di-n-octyl phthalate	3700	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
206-44-0	Fluoranthene	30000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
86-73-7	Fluorene	5100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	4500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
87-68-3	Hexachlorobutadiene	3600	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	7900	29000	ug/kg dry	1	09/08/15	B5H2808	8270	T
67-72-1	Hexachloroethane	3100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	12000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
3-59-1	Isophorone	3400	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
1-20-3	Naphthalene	4100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	3500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
67-75-9	N-Nitrosodimethylamine	2900	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
621-64-7	N-Nitrosodi-n-propylamine	3600	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
86-30-6	N-Nitrosodiphenylamine	2900	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
87-86-5	Pentachlorophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	V
85-01-8	Phenanthrene	19000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
108-95-2	Phenol	6200	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
129-00-0	Pyrene	28000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
Surrogate: 2,4,6-Tribromophenol			41.6 %	20.3-115		09/08/15	B5H2808	8270	
Surrogate: 2-Fluorobiphenyl			64.4 %	32.9-115		09/08/15	B5H2808	8270	
Surrogate: 2-Fluorophenol			40.4 %	23.7-115		09/08/15	B5H2808	8270	
Surrogate: Nitrobenzene-d5			57.0 %	31.8-115		09/08/15	B5H2808	8270	
Surrogate: Phenol-d6			51.8 %	29.3-115		09/08/15	B5H2808	8270	
Surrogate: p-Terphenyl-d14			72.9 %	38.5-115		09/08/15	B5H2808	8270	



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<b>Organics-Pesticides</b>									
									<b>See note Y20</b>
789-02-6	2,4'-DDT	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
72-54-8	4,4'-DDD	510	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T, A03
72-55-9	4,4'-DDE	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
50-29-3	4,4'-DDT	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
319-84-6	a-BHC	230	570	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
5103-71-9	a-Chlordane	290	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
309-00-2	Aldrin	450	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T, A04
319-85-7	b-BHC	210	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
319-86-8	d-BHC	270	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
60-57-1	Dieldrin	200	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
959-98-8	Endosulfan I	200	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
33213-65-9	Endosulfan II	330	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
1031-07-8	Endosulfan sulfate	280	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-20-8	Endrin	230	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
7421-93-4	Endrin aldehyde	220	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
53494-70-5	Endrin ketone	400	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
58-89-9	g-BHC (Lindane)	260	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
5103-74-2	g-Chlordane	230	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
76-44-8	Heptachlor	240	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
1024-57-3	Heptachlor epoxide	240	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
87-82-1	Hexabromobenzene	150	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-43-5	Methoxychlor	520	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T, A07, A04
2385-85-5	Mirex	240	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
59080-40-9	PBB (BP-6)	280	14000	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
8001-35-2	Toxaphene	ND	9700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl		Not Applicable		30-150		09/15/15	B5H3117	8081/8082	V
Surrogate: Tetrachloro-m-xylene		64.8 %		30-150		09/15/15	B5H3117	8081/8082	



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<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	70.0	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	2.8	0.14	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	44	0.6	mg/kg dry	20	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	150	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	770	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7440-41-7	Beryllium	100	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	15	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	120	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	110	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	250	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	23000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	920	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7439-96-5	Manganese	480	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7439-97-6	Mercury	1.4	0.1	mg/kg dry	2	09/03/15	B5I0204	7471/245.5	A03
7439-98-7	Molybdenum	120	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	120	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	120	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	11	1.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	94	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	120	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	950	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3





MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	5200	96	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	4500	96	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	4700	480	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	A06
591-78-6	2-Hexanone	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	A06
91-57-6	2-Methylnaphthalene	4700	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	4400	1900	ug/kg dry	50	08/28/15	B5H2803	8260	A06, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	4800	480	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	4600	480	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	5100	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	5200	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	4400	480	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	





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Lab ID: 1508223-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
10061-01-5	cis-1,3-Dichloropropylene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	4500	480	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
74-95-3	Dibromomethane	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	4200	480	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	4900	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	5000	480	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	4900	480	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	4800	480	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	9800	190	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	
534-04-4	Methyltertiarybutylether	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
1-20-3	Naphthalene	5100	480	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	5000	96	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	22000	4800	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amyl methylether	4900	480	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	4400	480	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	4800	96	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	4900	96	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	4500	96	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	4200	480	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	4700	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	4600	96	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			122 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			137 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			130 %	55.4-196		08/28/15	B5H2803	8260	


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<b>Organics-Semivolatiles</b>									
									See note Y20, Y25
120-82-1	1,2,4-Trichlorobenzene	3300	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-95-4	2,4,5-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
88-06-2	2,4,6-Trichlorophenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
120-83-2	2,4-Dichlorophenol	5200	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
105-67-9	2,4-Dimethylphenol	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
51-28-5	2,4-Dinitrophenol	21000	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
121-14-2	2,4-Dinitrotoluene	3100	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
606-20-2	2,6-Dinitrotoluene	3300	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
91-58-7	2-Chloronaphthalene	3500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-57-8	2-Chlorophenol	5700	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
534-52-1	2-Methyl-4,6-dinitrophenol	3400	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
91-57-6	2-Methylnaphthalene	3700	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
95-48-7	2-Methylphenol (o-Cresol)	ND	9400	ug/kg dry	1	09/08/15	B5H2808	8270	V
88-74-4	2-Nitroaniline	2900	14000	ug/kg dry	1	09/08/15	B5H2808	8270	T
88-75-5	2-Nitrophenol	6200	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
108394,106445	3 & 4-Methylphenol	1300	19000	ug/kg dry	1	09/08/15	B5H2808	8270	T
99-09-2	3-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	V
101-55-3	4-Bromophenyl phenyl ether	3900	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
59-50-7	4-Chloro-3-methyl-phenol	3900	5700	ug/kg dry	1	09/08/15	B5H2808	8270	V
7005-72-3	4-Chlorodiphenylether	3600	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	1500	14000	ug/kg dry	1	09/08/15	B5H2808	8270	T
100-02-7	4-Nitrophenol	3600	49000	ug/kg dry	1	09/08/15	B5H2808	8270	T
83-32-9	Acenaphthene	4300	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	4100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	5900	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	3700	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
56-55-3	Benz[a]anthracene	17000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
50-32-8	Benzo[a]pyrene	16000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
205-99-2	Benzo[b]fluoranthene	23000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	A03
191-24-2	Benzo[g,h,i]perylene	12000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	12000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	6600	71000	ug/kg dry	1	09/08/15	B5H2808	8270	T
111-91-1	Bis(2-chloroethoxy)methane	3900	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
111-44-4	Bis(2-chloroethyl)ether	3400	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	3300	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	3900	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
85-68-7	Butyl benzyl phthalate	4100	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
86-74-8	Carbazole	4600	7100	ug/kg dry	1	09/08/15	B5H2808	8270	



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<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
218-01-9	Chrysene	18000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
53-70-3	Dibenz[a,h]anthracene	6400	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	4100	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
84-66-2	Diethylphthalate	3700	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
131-11-3	Dimethyl phthalate	3700	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
84-74-2	Di-n-butyl phthalate	3700	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
117-84-0	Di-n-octyl phthalate	3400	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
206-44-0	Fluoranthene	28000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
86-73-7	Fluorene	4600	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	4000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
87-68-3	Hexachlorobutadiene	3400	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	7700	29000	ug/kg dry	1	09/08/15	B5H2808	8270	T
67-72-1	Hexachloroethane	3100	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	12000	5700	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	3300	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
1-20-3	Naphthalene	4000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	3200	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
67-75-9	N-Nitrosodimethylamine	2600	7100	ug/kg dry	1	09/08/15	B5H2808	8270	T
621-64-7	N-Nitrosodi-n-propylamine	3500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
86-30-6	N-Nitrosodiphenylamine	2500	5700	ug/kg dry	1	09/08/15	B5H2808	8270	T
87-86-5	Pentachlorophenol	ND	49000	ug/kg dry	1	09/08/15	B5H2808	8270	V
85-01-8	Phenanthrene	17000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
108-95-2	Phenol	5600	9400	ug/kg dry	1	09/08/15	B5H2808	8270	T
129-00-0	Pyrene	29000	2900	ug/kg dry	1	09/08/15	B5H2808	8270	A03
Surrogate: 2,4,6-Tribromophenol		35.1 %	20.3-115			09/08/15	B5H2808	8270	
Surrogate: 2-Fluorobiphenyl		59.7 %	32.9-115			09/08/15	B5H2808	8270	
Surrogate: 2-Fluorophenol		34.4 %	23.7-115			09/08/15	B5H2808	8270	
Surrogate: Nitrobenzene-d5		56.0 %	31.8-115			09/08/15	B5H2808	8270	
Surrogate: Phenol-d6		46.9 %	29.3-115			09/08/15	B5H2808	8270	
Surrogate: p-Terphenyl-d14		69.6 %	38.5-115			09/08/15	B5H2808	8270	



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<b>Organics-Pesticides</b>									
									See note Y20
789-02-6	2,4'-DDT	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
72-54-8	4,4'-DDD	660	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-55-9	4,4'-DDE	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
50-29-3	4,4'-DDT	ND	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	V
319-84-6	a-BHC	280	570	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
5103-71-9	a-Chlordane	340	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
309-00-2	Aldrin	400	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	A04, T
319-85-7	b-BHC	250	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
319-86-8	d-BHC	300	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
60-57-1	Dieldrin	250	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
959-98-8	Endosulfan I	260	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
33213-65-9	Endosulfan II	330	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
1031-07-8	Endosulfan sulfate	290	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-20-8	Endrin	270	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
7421-93-4	Endrin aldehyde	250	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
53494-70-5	Endrin ketone	340	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
58-89-9	g-BHC (Lindane)	270	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
5103-74-2	g-Chlordane	290	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
76-44-8	Heptachlor	260	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
1024-57-3	Heptachlor epoxide	300	1100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
87-82-1	Hexabromobenzene	200	5700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
72-43-5	Methoxychlor	370	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	A04, A07, T
2385-85-5	Mirex	320	2900	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
59080-40-9	PBB (BP-6)	310	14000	ug/kg dry	10	09/15/15	B5H3117	8081/8082	T
8001-35-2	Toxaphene	ND	9700	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl		Not Applicable		30-150		09/15/15	B5H3117	8081/8082	V
Surrogate: Tetrachloro-m-xylene		82.1 %		30-150		09/15/15	B5H3117	8081/8082	



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Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9600

Client ID: SS-2015-03-MSD

Lab ID: 1508223-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	70.0	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	2.8	0.14	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	49	0.6	mg/kg dry	20	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	150	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	1200	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7440-41-7	Beryllium	110	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	15	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	130	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	110	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	280	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	19000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	1800	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7439-96-5	Manganese	530	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3
7439-97-6	Mercury	1.8	0.1	mg/kg dry	2	09/03/15	B5I0204	7471/245.5	A04
7439-98-7	Molybdenum	130	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	130	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	120	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	11	1.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	92	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	130	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	1100	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3





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Client ID: SS-2015-04

Lab ID: 1508223-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	



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Client ID: SS-2015-04

Lab ID: 1508223-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			131 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			138 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			138 %	55.4-196		08/28/15	B5H2803	8260	



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FAX: (517) 335-9600

Client ID: SS-2015-04

Lab ID: 1508223-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20</b>
120-82-1	1,2,4-Trichlorobenzene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	3800	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	3800	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	1100	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	1500	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	1100	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	1100	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	3800	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	


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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
See note Y20									
84-66-2	Diethylphthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	2200	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	550	ug/kg dry	1	09/08/15	B5H2808	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
5-30-6	N-Nitrosodiphenylamine	ND	440	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	3800	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	730	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/08/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol			54.2 %	20.3-115		09/08/15	B5H2808	8270	
Surrogate: 2-Fluorobiphenyl			64.7 %	32.9-115		09/08/15	B5H2808	8270	
Surrogate: 2-Fluorophenol			42.2 %	23.7-115		09/08/15	B5H2808	8270	
Surrogate: Nitrobenzene-d5			60.4 %	31.8-115		09/08/15	B5H2808	8270	
Surrogate: Phenol-d6			54.0 %	29.3-115		09/08/15	B5H2808	8270	
Surrogate: p-Terphenyl-d14			82.8 %	38.5-115		09/08/15	B5H2808	8270	





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Client ID: SS-2015-04

Lab ID: 1508223-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
789-02-6	2,4'-DDT	7.6	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	T
72-54-8	4,4'-DDD	9.4	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	T
72-55-9	4,4'-DDE	14	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	T
50-29-3	4,4'-DDT	28	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	11	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	22	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	110	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	55	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	55	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	280	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	190	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			62.5 %	30-150		09/09/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			70.9 %	30-150		09/09/15	B5H3117	8081/8082	





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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11096-82-5	<b>Aroclor 1260</b>	<b>120</b>	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			62.5 %	30-150		09/14/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			70.9 %	30-150		09/14/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	90.3	0.1	%	1	08/27/15	B5H2709	2540-B	
57-12-5	Total Cyanide	0.17	0.11	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
140-36-0	Antimony	ND	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	5.7	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	29	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	0.2	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	0.3	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	3.5	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	13	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	9500	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	28	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	150	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.1	0.06	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	
7439-98-7	Molybdenum	ND	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-02-0	Nickel	9.6	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	13	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	60	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	


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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	



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<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3700	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	370	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	74	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			145 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			155 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			151 %	55.4-196		08/28/15	B5H2803	8260	



DEPARTMENT OF ENVIRONMENTAL QUALITY

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<b>Organics-Semivolatiles</b>									
									<b>See note Y20, Y25</b>
120-82-1	1,2,4-Trichlorobenzene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	41000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	41000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	12000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	16000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	12000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	12000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	41000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	60000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	Chrysene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	





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Client ID: SS-2015-05

Lab ID: 1508223-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
84-66-2	Diethylphthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>3200</b>	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
6-30-6	N-Nitrosodiphenylamine	ND	4800	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	41000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>3200</b>	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable	20.3-115			09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable	32.9-115			09/08/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable	23.7-115			09/08/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable	31.8-115			09/08/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable	29.3-115			09/08/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable	38.5-115			09/08/15	B5H2808	8270	V





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<b>Organics-Pesticides</b>									
<b>See note Y20</b>									
789-02-6	2,4'-DDT	81	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	240	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	180	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	340	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	24	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	48	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	240	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	120	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	120	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	600	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	410	ug/kg dry	1	09/09/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			71.8 %	30-150		09/09/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			69.8 %	30-150		09/09/15	B5H3117	8081/8082	


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<b>Organics-PCBs as Aroclors</b>									
<b>See note Y20</b>									
12674-11-2	Aroclor 1016	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	310	ug/kg dry	1	09/14/15	B5H3117	8081/8082	Y21
37324-23-5	<b>Aroclor 1262</b>	<b>310</b>	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	JD
11100-14-4	Aroclor 1268	ND	240	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			71.8 %	30-150		09/14/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			69.8 %	30-150		09/14/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	82.8	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.83	0.12	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Organics-Metals</b>									
7440-36-0	Antimony	2.0	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	7.9	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	120	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	2.7	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	ND	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	5.2	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	97	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	16000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	300	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	420	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.2	0.06	mg/kg dry	1	09/03/15	B5I0204	7471/245.5	
7439-98-7	Molybdenum	1.6	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	18	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	1.2	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	17	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	450	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3800	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amyl methylether	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	380	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	75	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			128 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			139 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			136 %	55.4-196		08/28/15	B5H2803	8260	



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Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9600

Client ID: SS-2015-06

Lab ID: 1508223-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	20000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	20000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	8000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	6000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	20000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	30000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	Chrysene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	





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Client ID: SS-2015-06

Lab ID: 1508223-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
84-66-2	Diethylphthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	Fluoranthene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	12000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	3000	ug/kg dry	1	09/08/15	B5H2808	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
6-30-6	N-Nitrosodiphenylamine	ND	2400	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	20000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	4000	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	Pyrene	ND	1200	ug/kg dry	1	09/08/15	B5H2808	8270	
<i>Surrogate: 2,4,6-Tribromophenol</i>			40.4 %	20.3-115		09/08/15	B5H2808	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			64.8 %	32.9-115		09/08/15	B5H2808	8270	
<i>Surrogate: 2-Fluorophenol</i>			35.7 %	23.7-115		09/08/15	B5H2808	8270	
<i>Surrogate: Nitrobenzene-d5</i>			58.5 %	31.8-115		09/08/15	B5H2808	8270	
<i>Surrogate: Phenol-d6</i>			50.9 %	29.3-115		09/08/15	B5H2808	8270	
<i>Surrogate: p-Terphenyl-d14</i>			80.5 %	38.5-115		09/08/15	B5H2808	8270	



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Client ID: SS-2015-06

Lab ID: 1508223-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
789-02-6	2,4'-DDT	15	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	T
72-54-8	4,4'-DDD	25	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	60	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	77	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	12	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	60	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	60	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	200	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			56.3 %	30-150		09/10/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			71.6 %	30-150		09/10/15	B5H3117	8081/8082	


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 Lansing, MI 48909  
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 FAX: (517) 335-9600

Client ID: SS-2015-06

Lab ID: 1508223-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
11096-82-5	<b>Aroclor 1260</b>	<b>170</b>	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	180	ug/kg dry	1	09/14/15	B5H3117	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/14/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			56.3%	30-150		09/14/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			71.6%	30-150		09/14/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	83.0	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.28	0.12	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	0.5	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	3.5	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	47	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	0.2	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	1.0	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	14	2.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	3.2	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	19	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	9100	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	110	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	150	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.1	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	ND	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-02-0	Nickel	11	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	0.8	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.4	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	13	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	150	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	



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Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9600

Client ID: SS-2015-07

Lab ID: 1508223-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	2100	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	



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Client ID: SS-2015-07

Lab ID: 1508223-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	210	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	5200	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	<b>Tetrachloroethylene</b>	<b>360</b>	100	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	520	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
<i>Surrogate: Bromofluorobenzene</i>			148 %	40.3-194		08/28/15	B5H2803	8260	
<i>Surrogate: Dibromofluoromethane</i>			153 %	52.1-217		08/28/15	B5H2803	8260	
<i>Surrogate: Toluene-d8</i>			151 %	55.4-196		08/28/15	B5H2803	8260	





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<b>Organics-Semivolatiles</b>									See note Y20, Y25
120-82-1	1,2,4-Trichlorobenzene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	47000	ug/kg dry	1	09/08/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	47000	ug/kg dry	1	09/08/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	18000	ug/kg dry	1	09/08/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	14000	ug/kg dry	1	09/08/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	47000	ug/kg dry	1	09/08/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
120-12-7	Anthracene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
103-33-3	Azobenzene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>5200</b>	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
50-32-8	<b>Benzo[a]pyrene</b>	<b>5200</b>	5500	ug/kg dry	1	09/08/15	B5H2808	8270	T
205-99-2	<b>Benzo[b]fluoranthene</b>	<b>8100</b>	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	69000	ug/kg dry	1	09/08/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
86-74-8	Carbazole	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>5800</b>	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	



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<b>Organics-Semivolatiles</b>									
84-66-2	Diethylphthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>9800</b>	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
86-73-7	Fluorene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	27000	ug/kg dry	1	09/08/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
78-59-1	Isophorone	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6900	ug/kg dry	1	09/08/15	B5H2808	8270	
121-64-7	N-Nitrosodi-n-propylamine	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
6-30-6	N-Nitrosodiphenylamine	ND	5500	ug/kg dry	1	09/08/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	47000	ug/kg dry	1	09/08/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>4600</b>	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
108-95-2	Phenol	ND	9100	ug/kg dry	1	09/08/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>10000</b>	2700	ug/kg dry	1	09/08/15	B5H2808	8270	
<i>Surrogate: 2,4,6-Tribromophenol</i>		<i>Not Applicable</i>		<i>20.3-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: 2-Fluorobiphenyl</i>		<i>Not Applicable</i>		<i>32.9-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: 2-Fluorophenol</i>		<i>Not Applicable</i>		<i>23.7-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: Nitrobenzene-d5</i>		<i>Not Applicable</i>		<i>31.8-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: Phenol-d6</i>		<i>Not Applicable</i>		<i>29.3-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: p-Terphenyl-d14</i>		<i>Not Applicable</i>		<i>38.5-115</i>		<i>09/08/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>



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<b>Organics-Pesticides</b>									
<b>See note Y20</b>									
789-02-6	2,4'-DDT	180	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	400	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	450	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	990	270	ug/kg dry	5	09/15/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	27	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	270	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	140	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	140	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	690	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	2300	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
Surrogate: Decachlorobiphenyl			62.9 %	30-150		09/10/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			72.8 %	30-150		09/10/15	B5H3117	8081/8082	



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<b>Organics-PCBs as Aroclors</b>									See note Y20
12674-11-2	Aroclor 1016	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	1400	ug/kg dry	5	09/15/15	B5H3117	8081/8082	Y21
<i>Surrogate: Decachlorobiphenyl</i>			62.9 %	30-150		09/15/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			72.8 %	30-150		09/15/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	72.8	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	1.0	0.14	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	6.3	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	22	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	480	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	2.3	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	4.3	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	37	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	12	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	220	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	40000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	620	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	510	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	1.7	0.07	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	7.6	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	160	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	2.3	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	2.3	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	51	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	2600	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles.</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	





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Lab ID: 1508223-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmetylether	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	300	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			118 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			126 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			123 %	55.4-196		08/28/15	B5H2803	8260	



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<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	19000	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	19000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	5600	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	5600	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	5600	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	19000	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	28000	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	Chrysene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	


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<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
84-66-2	Diethylphthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	Fluoranthene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	11000	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	2800	ug/kg dry	1	09/09/15	B5H2808	8270	
521-64-7	N-Nitrosodi-n-propylamine	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
5-30-6	N-Nitrosodiphenylamine	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	19000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	3700	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	Pyrene	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
<i>Surrogate: 2,4,6-Tribromophenol</i>			26.1 %	20.3-115		09/09/15	B5H2808	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			60.9 %	32.9-115		09/09/15	B5H2808	8270	
<i>Surrogate: 2-Fluorophenol</i>			25.0 %	23.7-115		09/09/15	B5H2808	8270	
<i>Surrogate: Nitrobenzene-d5</i>			53.9 %	31.8-115		09/09/15	B5H2808	8270	
<i>Surrogate: Phenol-d6</i>			42.8 %	29.3-115		09/09/15	B5H2808	8270	
<i>Surrogate: p-Terphenyl-d14</i>			78.6 %	38.5-115		09/09/15	B5H2808	8270	


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<b>Organics-Pesticides</b>									
789-02-6	2,4'-DDT	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	4.5	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	T
72-55-9	4,4'-DDE	17	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	T
50-29-3	4,4'-DDT	6.8	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	T
319-84-6	a-BHC	ND	11	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	56	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	56	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	280	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	190	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			61.8 %	30-150		09/10/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			69.9 %	30-150		09/10/15	B5H3117	8081/8082	



DEPARTMENT OF ENVIRONMENTAL QUALITY

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 ENVIRONMENTAL LABORATORY

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

Client ID: SS-2015-08

Lab ID: 1508223-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			61.8 %	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			69.9 %	30-150		09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	89.7	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	ND	0.11	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	ND	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	6.0	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	48	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	0.6	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	0.3	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	35	2.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	4.3	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	13	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	15000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	27	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	810	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	1.3	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	16	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	0.4	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	20	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	49	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	





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Client ID: SS-2015-09

Lab ID: 1508223-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,1,2,2-Tetrachloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	


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Lab ID: 1508223-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	70	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			134 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			144 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			138 %	55.4-196		08/28/15	B5H2803	8260	



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Client ID: SS-2015-09

Lab ID: 1508223-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20, Y25</b>
120-82-1	1,2,4-Trichlorobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	40000	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	40000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	16000	ug/kg dry	1	09/09/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	40000	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>4100</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	<b>Benzo[b]fluoranthene</b>	<b>5500</b>	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	60000	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>4500</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20, Y25</b>
84-66-2	Diethylphthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>9200</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
5-30-6	N-Nitrosodiphenylamine	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	40000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>7300</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>9100</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/09/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/09/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/09/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/09/15	B5H2808	8270	V



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P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9500

Client ID: SS-2015-09

Lab ID: 1508223-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
<b>See note Y20</b>									
789-02-6	2,4'-DDT	66	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	340	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	230	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	260	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	600	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	400	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			53.8 %	30-150		09/10/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			64.9 %	30-150		09/10/15	B5H3117	8081/8082	





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Client ID: SS-2015-09

Lab ID: 1508223-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									See note Y20
12674-11-2	Aroclor 1016	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			53.8%	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			64.9%	30-150		09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	84.0	0.1	%	1	08/27/15	B5H2709	2540.B	
57-12-5	Total Cyanide	0.37	0.12	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Organics-Metals</b>									
7440-36-0	Antimony	0.8	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	10	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	150	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	1.4	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	ND	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	5.7	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	65	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	21000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	130	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	410	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.2	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	2.1	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	20	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.4	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	22	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	240	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	



Client ID: SS-2015-10

Lab ID: 1508223-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	2200	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	220	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	5400	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	540	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	110	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			139 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			146 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			148 %	55.4-196		08/28/15	B5H2803	8260	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									See note Y20, Y25
120-82-1	1,2,4-Trichlorobenzene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	50000	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	50000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	15000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	20000	ug/kg dry	1	09/09/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	15000	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	15000	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	50000	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	74000	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	Chrysene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	



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Client ID: SS-2015-10

Lab ID: 1508223-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20, Y25</b>
84-66-2	Diethylphthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>3900</b>	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	30000	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	7400	ug/kg dry	1	09/09/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
65-30-6	N-Nitrosodiphenylamine	ND	5900	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	50000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	9800	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>4300</b>	3000	ug/kg dry	1	09/09/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/09/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/09/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/09/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/09/15	B5H2808	8270	V





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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b> <span style="float: right;">See note Y20</span>									
789-02-6	2,4'-DDT	3400	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	970	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	18000	5900	ug/kg dry	100	09/16/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	15000	5900	ug/kg dry	100	09/16/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	300	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	590	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	3000	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	1500	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	1500	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	7400	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	5000	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			122 %	30-150		09/15/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			80.1 %	30-150		09/15/15	B5H3117	8081/8082	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									See note Y20
12674-11-2	Aroclor 1016	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	300	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			122 %	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			80.1 %	30-150		09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	67.5	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.43	0.15	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	2.2	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	11	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	120	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	0.5	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	1.3	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	29	2.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	4.5	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	45	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	13000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	230	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-96-5	Manganese	510	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7439-97-6	Mercury	0.2	0.07	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	2.6	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	A09
7440-02-0	Nickel	20	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	0.8	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.3	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	19	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	170	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	


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74-95-3	Dibromomethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
98-87-6	p-Isopropyl toluene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmehtylether	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	340	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			144 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			153 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			153 %	55.4-196		08/28/15	B5H2803	8260	



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Lansing, MI 48909  
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FAX: (517) 335-9600

Client ID: SS-2015-11

Lab ID: 1508223-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>See note Y20, Y25</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	16000	ug/kg dry	1	09/09/15	B5H2808	8270	
99-09-2	3-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	<b>Benz[a]anthracene</b>	<b>2700</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	61000	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	<b>Chrysene</b>	<b>3300</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
132-64-9	Dibenzofuran	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	





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Client ID: SS-2015-11

Lab ID: 1508223-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
See note Y20, Y25									
84-66-2	Diethylphthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	<b>Fluoranthene</b>	<b>5000</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6100	ug/kg dry	1	09/09/15	B5H2808	8270	
21-64-7	N-Nitrosodi-n-propylamine	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
6-30-6	N-Nitrosodiphenylamine	ND	4900	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	<b>Phenanthrene</b>	<b>2500</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	8000	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	<b>Pyrene</b>	<b>5600</b>	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
Surrogate: 2,4,6-Tribromophenol		Not Applicable		20.3-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorobiphenyl		Not Applicable		32.9-115		09/09/15	B5H2808	8270	V
Surrogate: 2-Fluorophenol		Not Applicable		23.7-115		09/09/15	B5H2808	8270	V
Surrogate: Nitrobenzene-d5		Not Applicable		31.8-115		09/09/15	B5H2808	8270	V
Surrogate: Phenol-d6		Not Applicable		29.3-115		09/09/15	B5H2808	8270	V
Surrogate: p-Terphenyl-d14		Not Applicable		38.5-115		09/09/15	B5H2808	8270	V



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
									<b>See note Y20</b>
789-02-6	2,4'-DDT	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	1300	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	3800	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	1100	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	240	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
53494-70-5	Endrin ketone	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
58-89-9	g-BHC (Lindane)	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	490	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	2400	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	1200	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	1200	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	6100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	4100	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			105 %	30-150		09/15/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			70.6 %	30-150		09/15/15	B5H3117	8081/8082	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			105 %	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			70.6 %	30-150		09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	82.4	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	0.46	0.12	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	1.0	0.3	mg/kg dry	10	09/08/15	B5H3103	6020/200.8	
7440-38-2	Arsenic	9.4	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-39-3	Barium	110	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-43-9	Cadmium	1.1	0.2	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-47-3	Chromium	27	20	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-48-4	Cobalt	ND	5.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-50-8	Copper	62	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7439-89-6	Iron	14000	5.0	mg/kg dry	10	09/11/15	B5I0101	6010/200.7	A09
7439-92-1	Lead	350	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	X3
7439-96-5	Manganese	230	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	A04
7439-97-6	Mercury	0.3	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	ND	1.0	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-02-0	Nickel	22	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-22-4	Silver	0.6	0.1	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/04/15	B5I0101	6020/200.8	
7440-62-2	Vanadium	19	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	
7440-66-6	Zinc	5400	10	mg/kg dry	100	09/04/15	B5I0101	6020/200.8	X3



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Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9600

Client ID: TRIP BLANK

Lab ID: 1508223-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
78-87-5	1,2-Dichloropropane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1000	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
124-48-1	Dibromochloromethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	

See note Y09


 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
 ENVIRONMENTAL LABORATORY

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

Client ID: TRIP BLANK

Lab ID: 1508223-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
									<b>See note Y09</b>
74-95-3	Dibromomethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	100	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
5-47-6	o-Xylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
9-87-6	p-Isopropyl toluene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	2500	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmeylether	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	250	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	50	ug/kg dry	50	08/28/15	B5H2803	8260	
<i>Surrogate: Bromofluorobenzene</i>			79.1 %	40.3-194		08/28/15	B5H2803	8260	
<i>Surrogate: Dibromofluoromethane</i>			83.7 %	52.1-217		08/28/15	B5H2803	8260	
<i>Surrogate: Toluene-d8</i>			82.8 %	55.4-196		08/28/15	B5H2803	8260	





DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9800

Client ID: TRIP BLANK

Lab ID: 1508223-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	100	0.1	%	1	08/27/15	B5H2709	2540 B	



## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2705 - Method: 5035

Prepared: 08/27/2015

## Blank (B5H2705-BLK1)

1,1,1,2-Tetrachloroethane	ND	50	ug/kg wet							08/27/2015	
1,1,1-Trichloroethane	ND	50	ug/kg wet							08/27/2015	
1,1,2,2-Tetrachloroethane	ND	50	ug/kg wet							08/27/2015	
1,1,2-Trichloroethane	ND	50	ug/kg wet							08/27/2015	
1,1-Dichloroethane	ND	50	ug/kg wet							08/27/2015	
1,1-Dichloroethylene	ND	50	ug/kg wet							08/27/2015	
1,2,3-Trichlorobenzene	ND	250	ug/kg wet							08/27/2015	
1,2,3-Trichloropropane	ND	50	ug/kg wet							08/27/2015	
1,2,3-Trimethylbenzene	ND	50	ug/kg wet							08/27/2015	
1,2,4-Trichlorobenzene	ND	250	ug/kg wet							08/27/2015	
1,2,4-Trimethylbenzene	ND	50	ug/kg wet							08/27/2015	
1,2-Dibromo-3-chloropropane	ND	250	ug/kg wet							08/27/2015	
1,2-Dibromoethane	ND	50	ug/kg wet							08/27/2015	
1,2-Dichlorobenzene	ND	50	ug/kg wet							08/27/2015	
1,2-Dichloroethane	ND	50	ug/kg wet							08/27/2015	
1,2-Dichloropropane	ND	50	ug/kg wet							08/27/2015	
1,3,5-Trimethylbenzene	ND	50	ug/kg wet							08/27/2015	
1,3-Dichlorobenzene	ND	50	ug/kg wet							08/27/2015	
1,4-Dichlorobenzene	ND	50	ug/kg wet							08/27/2015	
2-Butanone (MEK)	ND	250	ug/kg wet							08/27/2015	
2-Hexanone	ND	250	ug/kg wet							08/27/2015	
2-Methylnaphthalene	ND	250	ug/kg wet							08/27/2015	X
2-Propanone (acetone)	ND	1000	ug/kg wet							08/27/2015	
4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg wet							08/27/2015	
Acrylonitrile	ND	250	ug/kg wet							08/27/2015	
Benzene	ND	50	ug/kg wet							08/27/2015	
Bromobenzene	ND	50	ug/kg wet							08/27/2015	
Bromochloromethane	ND	50	ug/kg wet							08/27/2015	
Bromodichloromethane	ND	50	ug/kg wet							08/27/2015	
Bromoform	ND	50	ug/kg wet							08/27/2015	
Bromomethane	ND	250	ug/kg wet							08/27/2015	
Carbon disulfide	ND	50	ug/kg wet							08/27/2015	
Carbon tetrachloride	ND	50	ug/kg wet							08/27/2015	
Chlorobenzene	ND	50	ug/kg wet							08/27/2015	
Chloroethane	ND	250	ug/kg wet							08/27/2015	
Chloroform	ND	50	ug/kg wet							08/27/2015	
Chloromethane	ND	250	ug/kg wet							08/27/2015	
cis-1,2-Dichloroethylene	ND	50	ug/kg wet							08/27/2015	
cis-1,3-Dichloropropylene	ND	50	ug/kg wet							08/27/2015	
Cyclohexane	ND	250	ug/kg wet							08/27/2015	
Dibromochloromethane	ND	50	ug/kg wet							08/27/2015	
Dibromomethane	ND	50	ug/kg wet							08/27/2015	
Dichlorodifluoromethane	ND	250	ug/kg wet							08/27/2015	
Diethyl ether	ND	250	ug/kg wet							08/27/2015	
Diisopropyl Ether	ND	250	ug/kg wet							08/27/2015	
Ethylbenzene	ND	50	ug/kg wet							08/27/2015	
Ethyltertiarybutylether	ND	250	ug/kg wet							08/27/2015	
Hexachloroethane	ND	250	ug/kg wet							08/27/2015	



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FAX: (517) 335-9600

**Organics-Volatiles - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H2705 - Method: 5035**

**Prepared: 08/27/2015**

**Blank (B5H2705-BLK1)**

Isopropylbenzene	ND	50	ug/kg wet							08/27/2015	
m & p - Xylene	ND	100	ug/kg wet							08/27/2015	
Methyl iodide	ND	50	ug/kg wet							08/27/2015	
Methylene chloride	ND	250	ug/kg wet							08/27/2015	
Methyltertiarybutylether	ND	50	ug/kg wet							08/27/2015	
Naphthalene	ND	250	ug/kg wet							08/27/2015	X
n-Butylbenzene	ND	50	ug/kg wet							08/27/2015	
n-Propylbenzene	ND	50	ug/kg wet							08/27/2015	
o-Xylene	ND	50	ug/kg wet							08/27/2015	
p-Isopropyl toluene	ND	50	ug/kg wet							08/27/2015	
sec-Butylbenzene	ND	50	ug/kg wet							08/27/2015	
Styrene	ND	50	ug/kg wet							08/27/2015	
tert-Butylbenzene	ND	50	ug/kg wet							08/27/2015	
tertiary Butyl Alcohol	ND	2500	ug/kg wet							08/27/2015	
tertiary Amyl methyl ether	ND	250	ug/kg wet							08/27/2015	
Tetrachloroethylene	ND	50	ug/kg wet							08/27/2015	
Tetrahydrofuran	ND	250	ug/kg wet							08/27/2015	
Toluene	ND	50	ug/kg wet							08/27/2015	
trans-1,2-Dichloroethylene	ND	50	ug/kg wet							08/27/2015	
trans-1,3-Dichloropropylene	ND	50	ug/kg wet							08/27/2015	
trans-1,4-Dichloro-2-butene	ND	250	ug/kg wet							08/27/2015	
Trichloroethylene	ND	50	ug/kg wet							08/27/2015	
Trichlorofluoromethane	ND	50	ug/kg wet							08/27/2015	
Vinyl chloride	ND	50	ug/kg wet							08/27/2015	
Surrogate: Bromofluorobenzene	50.6		ug/L	50.00		101	40.3-194			08/27/2015	
Surrogate: Dibromofluoromethane	51.4		ug/L	50.00		103	52.1-217			08/27/2015	
Surrogate: Toluene-d8	50.4		ug/L	50.00		101	55.4-196			08/27/2015	

**LCS (B5H2705-BS1)**

1,1,1,2-Tetrachloroethane	2750	50	ug/kg wet	2500		110	70-130			08/27/2015	
1,1,1-Trichloroethane	2760	50	ug/kg wet	2500		110	70-130			08/27/2015	
1,1,2,2-Tetrachloroethane	3000	50	ug/kg wet	2500		120	70-130			08/27/2015	
1,1,2-Trichloroethane	2640	50	ug/kg wet	2500		106	70-130			08/27/2015	
1,1-Dichloroethane	2770	50	ug/kg wet	2500		111	70-130			08/27/2015	
1,1-Dichloroethylene	2550	50	ug/kg wet	2500		102	70-130			08/27/2015	
1,2,3-Trichlorobenzene	2510	250	ug/kg wet	2500		100	70-130			08/27/2015	
1,2,3-Trichloropropane	2690	50	ug/kg wet	2500		108	70-130			08/27/2015	
1,2,3-Trimethylbenzene	2620	50	ug/kg wet	2500		105	70-130			08/27/2015	
1,2,4-Trichlorobenzene	2490	250	ug/kg wet	2500		99.8	70-130			08/27/2015	
1,2,4-Trimethylbenzene	2750	50	ug/kg wet	2500		110	70-130			08/27/2015	
1,2-Dibromo-3-chloropropane	2760	250	ug/kg wet	2500		110	70-130			08/27/2015	
1,2-Dibromoethane	2740	50	ug/kg wet	2500		110	70-130			08/27/2015	
1,2-Dichlorobenzene	2680	50	ug/kg wet	2500		107	70-130			08/27/2015	
1,2-Dichloroethane	2770	50	ug/kg wet	2500		111	70-130			08/27/2015	
1,2-Dichloropropane	2690	50	ug/kg wet	2500		108	70-130			08/27/2015	
1,3,5-Trimethylbenzene	2710	50	ug/kg wet	2500		108	70-130			08/27/2015	
1,3-Dichlorobenzene	2720	50	ug/kg wet	2500		109	70-130			08/27/2015	
1,4-Dichlorobenzene	2670	50	ug/kg wet	2500		107	70-130			08/27/2015	



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**Organics-Volatiles - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
<b>Batch B5H2705 - Method: 5035</b>											
<b>Prepared: 08/27/2015</b>											
<b>LCS (B5H2705-BS1)</b>											
2-Butanone (MEK)	4320	250	ug/kg wet	2500		173	70-130			08/27/2015	A06, A09
2-Hexanone	3980	250	ug/kg wet	2500		159	70-130			08/27/2015	A06, A09
2-Methylnaphthalene	2400	250	ug/kg wet	2500		96.1	70-130			08/27/2015	X
2-Propanone (acetone)	5430	1000	ug/kg wet	2500		217	70-130			08/27/2015	A06, A09, A11
4-Methyl-2-pentanone (MIBK)	2730	250	ug/kg wet	2500		109	70-130			08/27/2015	
Acrylonitrile	2600	250	ug/kg wet	2500		104	70-130			08/27/2015	
Benzene	2670	50	ug/kg wet	2500		107	70-130			08/27/2015	
Bromobenzene	2660	50	ug/kg wet	2500		107	70-130			08/27/2015	
Bromochloromethane	2660	50	ug/kg wet	2500		106	70-130			08/27/2015	
Bromodichloromethane	2910	50	ug/kg wet	2500		116	70-130			08/27/2015	
Bromoform	2700	50	ug/kg wet	2500		108	70-130			08/27/2015	
Bromomethane	2890	250	ug/kg wet	2500		116	70-130			08/27/2015	
Carbon disulfide	2870	50	ug/kg wet	2500		115	70-130			08/27/2015	
Carbon tetrachloride	2550	50	ug/kg wet	2500		102	70-130			08/27/2015	
Chlorobenzene	2630	50	ug/kg wet	2500		105	70-130			08/27/2015	
Chloroethane	3000	250	ug/kg wet	2500		120	70-130			08/27/2015	
Chloroform	2830	50	ug/kg wet	2500		113	70-130			08/27/2015	
Chloromethane	2580	250	ug/kg wet	2500		103	70-130			08/27/2015	
cis-1,2-Dichloroethylene	2780	50	ug/kg wet	2500		111	70-130			08/27/2015	
cis-1,3-Dichloropropylene	2750	50	ug/kg wet	2500		110	70-130			08/27/2015	
Cyclohexane	2540	250	ug/kg wet	2500		102	70-130			08/27/2015	
Dibromochloromethane	2820	50	ug/kg wet	2500		113	70-130			08/27/2015	
Dibromomethane	2560	50	ug/kg wet	2500		103	70-130			08/27/2015	
Dichlorodifluoromethane	2600	250	ug/kg wet	2500		104	70-130			08/27/2015	
Diethyl ether	2800	250	ug/kg wet	2500		112	70-130			08/27/2015	
Diisopropyl Ether	2750	250	ug/kg wet	2500		110	70-130			08/27/2015	
Ethylbenzene	2690	50	ug/kg wet	2500		108	70-130			08/27/2015	
Ethyltertiarybutylether	2660	250	ug/kg wet	2500		106	70-130			08/27/2015	
Hexachloroethane	2750	250	ug/kg wet	2500		110	70-130			08/27/2015	
Isopropylbenzene	2720	50	ug/kg wet	2500		109	70-130			08/27/2015	
m & p - Xylene	5400	100	ug/kg wet	5000		108	70-130			08/27/2015	
Methyl iodide	2600	50	ug/kg wet	2500		104	70-130			08/27/2015	
Methylene chloride	2830	250	ug/kg wet	2500		113	70-130			08/27/2015	
Methyltertiarybutylether	2740	50	ug/kg wet	2500		110	70-130			08/27/2015	
Naphthalene	2640	250	ug/kg wet	2500		106	70-130			08/27/2015	X
n-Butylbenzene	2670	50	ug/kg wet	2500		107	70-130			08/27/2015	
n-Propylbenzene	2790	50	ug/kg wet	2500		112	70-130			08/27/2015	
o-Xylene	2670	50	ug/kg wet	2500		107	70-130			08/27/2015	
p-Isopropyl toluene	2650	50	ug/kg wet	2500		106	70-130			08/27/2015	
sec-Butylbenzene	2660	50	ug/kg wet	2500		106	70-130			08/27/2015	
Styrene	2750	50	ug/kg wet	2500		110	70-130			08/27/2015	
tert-Butylbenzene	2640	50	ug/kg wet	2500		106	70-130			08/27/2015	
tertiary Butyl Alcohol	12800	2500	ug/kg wet	12500		102	70-130			08/27/2015	
tertiary Amyl methyl ether	2600	250	ug/kg wet	2500		104	70-130			08/27/2015	
Tetrachloroethylene	2570	50	ug/kg wet	2500		103	70-130			08/27/2015	
Tetrahydrofuran	2640	250	ug/kg wet	2500		105	70-130			08/27/2015	
Toluene	2640	50	ug/kg wet	2500		105	70-130			08/27/2015	





MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2705 - Method: 5035

Prepared: 08/27/2015

## LCS (B5H2705-BS1)

trans-1,2-Dichloroethylene	2750	50	ug/kg wet	2500		110	70-130			08/27/2015	
trans-1,3-Dichloropropylene	2560	50	ug/kg wet	2500		102	70-130			08/27/2015	
trans-1,4-Dichloro-2-butene	2630	250	ug/kg wet	2500		105	70-130			08/27/2015	
Trichloroethylene	2520	50	ug/kg wet	2500		101	70-130			08/27/2015	
Trichlorofluoromethane	2690	50	ug/kg wet	2500		107	70-130			08/27/2015	
Vinyl chloride	2600	50	ug/kg wet	2500		104	70-130			08/27/2015	
Surrogate: Bromofluorobenzene	49.9		ug/L	50.00		99.8	40.3-194			08/27/2015	
Surrogate: Dibromofluoromethane	51.5		ug/L	50.00		103	52.1-217			08/27/2015	
Surrogate: Toluene-d8	51.2		ug/L	50.00		102	55.4-196			08/27/2015	

## Matrix Spike (B5H2705-MS1)

Source: 1508214-03

1,1,1,2-Tetrachloroethane	2960	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
1,1,1-Trichloroethane	3060	57	ug/kg dry	2858	ND	107	70-130			08/27/2015	
1,1,2,2-Tetrachloroethane	3080	57	ug/kg dry	2858	ND	108	70-130			08/27/2015	
1,1,2-Trichloroethane	2870	57	ug/kg dry	2858	ND	101	70-130			08/27/2015	
1,1-Dichloroethane	3020	57	ug/kg dry	2858	ND	106	70-130			08/27/2015	
1,1-Dichloroethylene	2760	57	ug/kg dry	2858	ND	96.5	70-130			08/27/2015	
1,2,3-Trichlorobenzene	2700	290	ug/kg dry	2858	ND	94.3	70-130			08/27/2015	
1,2,3-Trichloropropane	2830	57	ug/kg dry	2858	ND	98.9	70-130			08/27/2015	
1,2,3-Trimethylbenzene	2850	57	ug/kg dry	2858	ND	99.9	70-130			08/27/2015	
1,2,4-Trichlorobenzene	2740	290	ug/kg dry	2858	ND	95.8	70-130			08/27/2015	
1,2,4-Trimethylbenzene	2960	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
1,2-Dibromo-3-chloropropane	2940	290	ug/kg dry	2858	ND	103	70-130			08/27/2015	
1,2-Dibromoethane	2960	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
1,2-Dichlorobenzene	2870	57	ug/kg dry	2858	ND	101	70-130			08/27/2015	
1,2-Dichloroethane	3060	57	ug/kg dry	2858	ND	107	70-130			08/27/2015	
1,2-Dichloropropane	2960	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
1,3,5-Trimethylbenzene	2940	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
1,3-Dichlorobenzene	2890	57	ug/kg dry	2858	ND	101	70-130			08/27/2015	
1,4-Dichlorobenzene	2880	57	ug/kg dry	2858	ND	101	70-130			08/27/2015	
2-Butanone (MEK)	4200	290	ug/kg dry	2858	ND	147	70-130			08/27/2015	A04, A06
2-Hexanone	3830	290	ug/kg dry	2858	ND	134	70-130			08/27/2015	A04, A06
2-Methylnaphthalene	2710	290	ug/kg dry	2858	ND	94.8	70-130			08/27/2015	X
2-Propanone (acetone)	5210	1100	ug/kg dry	2858	ND	182	70-130			08/27/2015	A04, A06, A11
4-Methyl-2-pentanone (MIBK)	2840	290	ug/kg dry	2858	ND	99.4	70-130			08/27/2015	
Acrylonitrile	2860	290	ug/kg dry	2858	ND	100	70-130			08/27/2015	
Benzene	3000	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	
Bromobenzene	2940	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
Bromochloromethane	2990	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	
Bromodichloromethane	3070	57	ug/kg dry	2858	ND	108	70-130			08/27/2015	
Bromoform	2770	57	ug/kg dry	2858	ND	97.0	70-130			08/27/2015	
Bromomethane	3170	290	ug/kg dry	2858	ND	111	70-130			08/27/2015	
Carbon disulfide	2960	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
Carbon tetrachloride	2790	57	ug/kg dry	2858	ND	97.8	70-130			08/27/2015	
Chlorobenzene	2910	57	ug/kg dry	2858	ND	102	70-130			08/27/2015	
Chloroethane	3250	290	ug/kg dry	2858	ND	114	70-130			08/27/2015	
Chloroform	3010	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	





DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY**

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

**Organics-Volatiles - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H2705 - Method: 5035**
**Prepared: 08/26/2015**
**Matrix Spike (B5H2705-MS1)**
**Source: 1508214-03**

Chloromethane	2780	290	ug/kg dry	2858	ND	97.3	70-130			08/27/2015	
cis-1,2-Dichloroethylene	2970	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
cis-1,3-Dichloropropylene	2940	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
Cyclohexane	2870	290	ug/kg dry	2858	ND	100	70-130			08/27/2015	
Dibromochloromethane	2940	57	ug/kg dry	2858	ND	103	70-130			08/27/2015	
Dibromomethane	2760	57	ug/kg dry	2858	ND	96.7	70-130			08/27/2015	
Dichlorodifluoromethane	2770	290	ug/kg dry	2858	ND	97.0	70-130			08/27/2015	
Diethyl ether	3010	290	ug/kg dry	2858	ND	105	70-130			08/27/2015	
Diisopropyl Ether	3020	290	ug/kg dry	2858	ND	106	70-130			08/27/2015	
Ethylbenzene	3010	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	
Ethyltertiarybutylether	2930	290	ug/kg dry	2858	ND	103	70-130			08/27/2015	
Hexachloroethane	2810	290	ug/kg dry	2858	ND	98.3	70-130			08/27/2015	
Isopropylbenzene	3000	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	
m & p - Xylene	6010	110	ug/kg dry	5716	ND	105	70-130			08/27/2015	
Methyl iodide	2760	57	ug/kg dry	2858	ND	96.4	70-130			08/27/2015	
Methylene chloride	3070	290	ug/kg dry	2858	ND	108	70-130			08/27/2015	
n-Butylbenzene	3030	57	ug/kg dry	2858	ND	106	70-130			08/27/2015	
n-Propylbenzene	2920	290	ug/kg dry	2858	ND	102	70-130			08/27/2015	X
o-Xylene	2850	57	ug/kg dry	2858	ND	99.7	70-130			08/27/2015	
p-Isopropyl toluene	2980	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
p-Xylene	3010	57	ug/kg dry	2858	ND	105	70-130			08/27/2015	
sec-Butylbenzene	2800	57	ug/kg dry	2858	ND	98.0	70-130			08/27/2015	
Styrene	2860	57	ug/kg dry	2858	ND	100	70-130			08/27/2015	
tert-Butylbenzene	3040	57	ug/kg dry	2858	ND	106	70-130			08/27/2015	
tert-Butyl Alcohol	2820	57	ug/kg dry	2858	ND	98.6	70-130			08/27/2015	
tert-Butylmethyl ether	13400	2900	ug/kg dry	14290	ND	93.7	70-130			08/27/2015	
Tetrahydrofuran	2910	290	ug/kg dry	2858	ND	102	70-130			08/27/2015	
Toluene	2800	57	ug/kg dry	2858	ND	98.0	70-130			08/27/2015	
trans-1,2-Dichloroethylene	2750	290	ug/kg dry	2858	ND	96.3	70-130			08/27/2015	
trans-1,3-Dichloropropylene	2910	57	ug/kg dry	2858	ND	102	70-130			08/27/2015	
trans-1,4-Dichloro-2-butene	2730	57	ug/kg dry	2858	ND	95.5	70-130			08/27/2015	
Trichloroethylene	2720	290	ug/kg dry	2858	ND	95.3	70-130			08/27/2015	
Trichlorofluoromethane	2780	57	ug/kg dry	2858	ND	97.1	70-130			08/27/2015	
Vinyl chloride	2970	57	ug/kg dry	2858	ND	104	70-130			08/27/2015	
Vinyl Chloride	2900	57	ug/kg dry	2858	ND	101	70-130			08/27/2015	
Surrogate: Bromofluorobenzene	51.8		ug/kg dry	52.45		98.8	40.3-194			08/27/2015	
Surrogate: Dibromofluoromethane	57.8		ug/kg dry	52.45		110	52.1-217			08/27/2015	
Surrogate: Toluene-d8	55.4		ug/kg dry	52.45		106	55.4-196			08/27/2015	

**Matrix Spike Dup (B5H2705-MSD1)**
**Source: 1508214-03**

1,1,1,2-Tetrachloroethane	2880	57	ug/kg dry	2858	ND	101	70-130	2.87	30	08/27/2015	
1,1,1-Trichloroethane	2800	57	ug/kg dry	2858	ND	98.1	70-130	8.90	30	08/27/2015	
1,1,2,2-Tetrachloroethane	3110	57	ug/kg dry	2858	ND	109	70-130	1.12	30	08/27/2015	
1,1,2-Trichloroethane	2810	57	ug/kg dry	2858	ND	98.3	70-130	2.29	30	08/27/2015	
1,1-Dichloroethane	2790	57	ug/kg dry	2858	ND	97.7	70-130	7.72	30	08/27/2015	
1-Dichloroethylene	2500	57	ug/kg dry	2858	ND	87.4	70-130	9.86	30	08/27/2015	
1,2,3-Trichlorobenzene	2700	290	ug/kg dry	2858	ND	94.4	70-130	0.0504	30	08/27/2015	



## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2705 - Method: 5035

Prepared: 08/26/2015

## Matrix Spike Dup (B5H2705-MSD1)

Source: 1508214-03

1,2,3-Trichloropropane	2850	57	ug/kg dry	2858	ND	99.6	70-130	0.656	30	08/27/2015	
1,2,3-Trimethylbenzene	2770	57	ug/kg dry	2858	ND	97.1	70-130	2.85	30	08/27/2015	
1,2,4-Trichlorobenzene	2660	290	ug/kg dry	2858	ND	93.2	70-130	2.71	30	08/27/2015	
1,2,4-Trimethylbenzene	2860	57	ug/kg dry	2858	ND	100	70-130	3.24	30	08/27/2015	
1,2-Dibromo-3-chloropropane	2800	290	ug/kg dry	2858	ND	98.0	70-130	4.83	30	08/27/2015	
1,2-Dibromoethane	2970	57	ug/kg dry	2858	ND	104	70-130	0.292	30	08/27/2015	
1,2-Dichlorobenzene	2820	57	ug/kg dry	2858	ND	98.7	70-130	1.81	30	08/27/2015	
1,2-Dichloroethane	2940	57	ug/kg dry	2858	ND	103	70-130	4.19	30	08/27/2015	
1,2-Dichloropropane	2760	57	ug/kg dry	2858	ND	96.7	70-130	6.97	30	08/27/2015	
1,3,5-Trimethylbenzene	2820	57	ug/kg dry	2858	ND	98.7	70-130	4.07	30	08/27/2015	
1,3-Dichlorobenzene	2810	57	ug/kg dry	2858	ND	98.5	70-130	2.51	30	08/27/2015	
1,4-Dichlorobenzene	2780	57	ug/kg dry	2858	ND	97.4	70-130	3.34	30	08/27/2015	
2-Butanone (MEK)	2790	290	ug/kg dry	2858	ND	133	70-130	10.1	30	08/27/2015	A04, A06
2-Hexanone	3590	290	ug/kg dry	2858	ND	126	70-130	6.48	30	08/27/2015	A06
2-Methylnaphthalene	2740	290	ug/kg dry	2858	ND	96.0	70-130	1.19	30	08/27/2015	X
2-Propanone (acetone)	4600	1100	ug/kg dry	2858	ND	161	70-130	12.3	30	08/27/2015	A04, A06, A11
4-Methyl-2-pentanone (MIBK)	2900	290	ug/kg dry	2858	ND	101	70-130	2.03	30	08/27/2015	
Acrylonitrile	2700	290	ug/kg dry	2858	ND	94.6	70-130	5.58	30	08/27/2015	
Benzene	2760	57	ug/kg dry	2858	ND	96.5	70-130	8.51	30	08/27/2015	
Bromobenzene	2840	57	ug/kg dry	2858	ND	99.5	70-130	3.20	30	08/27/2015	
Bromochloromethane	2830	57	ug/kg dry	2858	ND	99.1	70-130	5.45	30	08/27/2015	
Bromodichloromethane	2920	57	ug/kg dry	2858	ND	102	70-130	5.10	30	08/27/2015	
Bromoform	2730	57	ug/kg dry	2858	ND	95.4	70-130	1.61	30	08/27/2015	
Bromomethane	2820	290	ug/kg dry	2858	ND	98.8	70-130	11.6	30	08/27/2015	
Carbon disulfide	2720	57	ug/kg dry	2858	ND	95.3	70-130	8.17	30	08/27/2015	
Carbon tetrachloride	2530	57	ug/kg dry	2858	ND	88.4	70-130	10.0	30	08/27/2015	
Chlorobenzene	2790	57	ug/kg dry	2858	ND	97.7	70-130	4.15	30	08/27/2015	
Chloroethane	2950	290	ug/kg dry	2858	ND	103	70-130	9.69	30	08/27/2015	
Chloroform	2860	57	ug/kg dry	2858	ND	99.9	70-130	5.32	30	08/27/2015	
Chloromethane	2500	290	ug/kg dry	2858	ND	87.5	70-130	10.7	30	08/27/2015	
cis-1,2-Dichloroethylene	2830	57	ug/kg dry	2858	ND	99.1	70-130	4.58	30	08/27/2015	
cis-1,3-Dichloropropylene	2830	57	ug/kg dry	2858	ND	98.9	70-130	3.83	30	08/27/2015	
Cyclohexane	2590	290	ug/kg dry	2858	ND	90.5	70-130	10.2	30	08/27/2015	
Dibromochloromethane	2990	57	ug/kg dry	2858	ND	105	70-130	1.98	30	08/27/2015	
Dibromomethane	2780	57	ug/kg dry	2858	ND	97.3	70-130	0.560	30	08/27/2015	
Dichlorodifluoromethane	2530	290	ug/kg dry	2858	ND	88.5	70-130	9.18	30	08/27/2015	
Diethyl ether	2920	290	ug/kg dry	2858	ND	102	70-130	3.16	30	08/27/2015	
Diisopropyl Ether	2910	290	ug/kg dry	2858	ND	102	70-130	3.53	30	08/27/2015	
Ethylbenzene	2800	57	ug/kg dry	2858	ND	98.1	70-130	6.98	30	08/27/2015	
Ethyltertiarybutylether	2860	290	ug/kg dry	2858	ND	100	70-130	2.49	30	08/27/2015	
Hexachloroethane	2650	290	ug/kg dry	2858	ND	92.8	70-130	5.76	30	08/27/2015	
Isopropylbenzene	2880	57	ug/kg dry	2858	ND	101	70-130	4.08	30	08/27/2015	
m & p - Xylene	5620	110	ug/kg dry	5716	ND	98.2	70-130	6.73	30	08/27/2015	
Methyl iodide	2640	57	ug/kg dry	2858	ND	92.5	70-130	4.16	30	08/27/2015	
Methylene chloride	2900	290	ug/kg dry	2858	ND	102	70-130	5.72	30	08/27/2015	
Methyltertiarybutylether	2950	57	ug/kg dry	2858	ND	103	70-130	2.58	30	08/27/2015	
Naphthalene	2960	290	ug/kg dry	2858	ND	104	70-130	1.16	30	08/27/2015	



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

## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5H2705 - Method: 5035

Prepared: 08/26/2015

## Matrix Spike Dup (B5H2705-MSD1)

Source: 1508214-03

n-Butylbenzene	2670	57	ug/kg dry	2858	ND	93.3	70-130	6.59	30	08/27/2015	
n-Propylbenzene	2820	57	ug/kg dry	2858	ND	98.8	70-130	5.33	30	08/27/2015	
o-Xylene	2810	57	ug/kg dry	2858	ND	98.4	70-130	6.88	30	08/27/2015	
p-Isopropyl toluene	2670	57	ug/kg dry	2858	ND	93.5	70-130	4.69	30	08/27/2015	
sec-Butylbenzene	2720	57	ug/kg dry	2858	ND	95.3	70-130	5.02	30	08/27/2015	
Styrene	2850	57	ug/kg dry	2858	ND	99.9	70-130	6.39	30	08/27/2015	
tert-Butylbenzene	2710	57	ug/kg dry	2858	ND	94.9	70-130	3.89	30	08/27/2015	
tertiary Butyl Alcohol	13100	2900	ug/kg dry	14290	ND	91.9	70-130	1.91	30	08/27/2015	
tertiary Amyl methyl ether	2850	290	ug/kg dry	2858	ND	99.8	70-130	1.86	30	08/27/2015	
Tetrachloroethylene	2540	57	ug/kg dry	2858	ND	88.7	70-130	9.90	30	08/27/2015	
Tetrahydrofuran	2690	290	ug/kg dry	2858	ND	94.2	70-130	2.15	30	08/27/2015	
Toluene	2750	57	ug/kg dry	2858	ND	96.2	70-130	5.80	30	08/27/2015	
trans-1,2-Dichloroethylene	2720	57	ug/kg dry	2858	ND	95.3	70-130	9.97	30	08/27/2015	
trans-1,3-Dichloropropylene	2610	57	ug/kg dry	2858	ND	91.4	70-130	4.37	30	08/27/2015	
trans-1,4-Dichloro-2-butene	2710	290	ug/kg dry	2858	ND	94.7	70-130	0.616	30	08/27/2015	
Trichloroethylene	2590	57	ug/kg dry	2858	ND	90.5	70-130	7.08	30	08/27/2015	
Trichlorofluoromethane	2640	57	ug/kg dry	2858	ND	92.5	70-130	11.7	30	08/27/2015	
vinyl chloride	2600	57	ug/kg dry	2858	ND	90.9	70-130	11.0	30	08/27/2015	
Surrogate: Bromofluorobenzene	49.0		ug/kg dry	52.45		93.5	40.3-194			08/27/2015	
Surrogate: Dibromofluoromethane	55.5		ug/kg dry	52.45		106	52.1-217			08/27/2015	
Surrogate: Toluene-d8	52.6		ug/kg dry	52.45		100	55.4-196			08/27/2015	

## Batch B5H2803 - Method: 5035

Prepared: 08/28/2015

## Blank (B5H2803-BLK1)

1,1,1,2-Tetrachloroethane	ND	50	ug/kg wet							08/28/2015	
1,1,1-Trichloroethane	ND	50	ug/kg wet							08/28/2015	
1,1,2,2-Tetrachloroethane	ND	50	ug/kg wet							08/28/2015	
1,1,2-Trichloroethane	ND	50	ug/kg wet							08/28/2015	
1,1-Dichloroethane	ND	50	ug/kg wet							08/28/2015	
1,1-Dichloroethylene	ND	50	ug/kg wet							08/28/2015	
1,2,3-Trichlorobenzene	ND	250	ug/kg wet							08/28/2015	
1,2,3-Trichloropropane	ND	50	ug/kg wet							08/28/2015	
1,2,3-Trimethylbenzene	ND	50	ug/kg wet							08/28/2015	
1,2,4-Trichlorobenzene	ND	250	ug/kg wet							08/28/2015	
1,2,4-Trimethylbenzene	ND	50	ug/kg wet							08/28/2015	
1,2-Dibromo-3-chloropropane	ND	250	ug/kg wet							08/28/2015	
1,2-Dibromoethane	ND	50	ug/kg wet							08/28/2015	
1,2-Dichlorobenzene	ND	50	ug/kg wet							08/28/2015	
1,2-Dichloroethane	ND	50	ug/kg wet							08/28/2015	
1,2-Dichloropropane	ND	50	ug/kg wet							08/28/2015	
1,3,5-Trimethylbenzene	ND	50	ug/kg wet							08/28/2015	
1,3-Dichlorobenzene	ND	50	ug/kg wet							08/28/2015	
1,4-Dichlorobenzene	ND	50	ug/kg wet							08/28/2015	
Butanone (MEK)	ND	250	ug/kg wet							08/28/2015	
Hexanone	ND	250	ug/kg wet							08/28/2015	




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 P.O. Box 30270  
 Lansing, MI 48909  
 TEL: (517) 335-9800  
 FAX: (517) 335-9

## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2803 - Method: 5035

Prepared: 08/28/2015

## Blank (B5H2803-BLK1)

2-Methylnaphthalene	ND	250	ug/kg wet							08/28/2015	X
2-Propanone (acetone)	ND	1000	ug/kg wet							08/28/2015	
4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg wet							08/28/2015	
Acrylonitrile	ND	250	ug/kg wet							08/28/2015	
Benzene	ND	50	ug/kg wet							08/28/2015	
Bromobenzene	ND	50	ug/kg wet							08/28/2015	
Bromochloromethane	ND	50	ug/kg wet							08/28/2015	
Bromodichloromethane	ND	50	ug/kg wet							08/28/2015	
Bromoform	ND	50	ug/kg wet							08/28/2015	
Bromomethane	ND	250	ug/kg wet							08/28/2015	
Carbon disulfide	ND	50	ug/kg wet							08/28/2015	
Carbon tetrachloride	ND	50	ug/kg wet							08/28/2015	
Chlorobenzene	ND	50	ug/kg wet							08/28/2015	
Chloroethane	ND	250	ug/kg wet							08/28/2015	
Chloroform	ND	50	ug/kg wet							08/28/2015	
Chloromethane	ND	250	ug/kg wet							08/28/2015	
cis-1,2-Dichloroethylene	ND	50	ug/kg wet							08/28/2015	
cis-1,3-Dichloropropylene	ND	50	ug/kg wet							08/28/2015	
Cyclohexane	ND	250	ug/kg wet							08/28/2015	
Dibromochloromethane	ND	50	ug/kg wet							08/28/2015	
Dibromomethane	ND	50	ug/kg wet							08/28/2015	
Dichlorodifluoromethane	ND	250	ug/kg wet							08/28/2015	
Diethyl ether	ND	250	ug/kg wet							08/28/2015	
Diisopropyl Ether	ND	250	ug/kg wet							08/28/2015	
Ethylbenzene	ND	50	ug/kg wet							08/28/2015	
Ethyltertiarybutylether	ND	250	ug/kg wet							08/28/2015	
Hexachloroethane	ND	250	ug/kg wet							08/28/2015	
Isopropylbenzene	ND	50	ug/kg wet							08/28/2015	
m & p - Xylene	ND	100	ug/kg wet							08/28/2015	
Methyl iodide	ND	50	ug/kg wet							08/28/2015	
Methylene chloride	ND	250	ug/kg wet							08/28/2015	
Methyltertiarybutylether	ND	50	ug/kg wet							08/28/2015	
Naphthalene	ND	250	ug/kg wet							08/28/2015	X
n-Butylbenzene	ND	50	ug/kg wet							08/28/2015	
n-Propylbenzene	ND	50	ug/kg wet							08/28/2015	
o-Xylene	ND	50	ug/kg wet							08/28/2015	
p-Isopropyl toluene	ND	50	ug/kg wet							08/28/2015	
sec-Butylbenzene	ND	50	ug/kg wet							08/28/2015	
Styrene	ND	50	ug/kg wet							08/28/2015	
tert-Butylbenzene	ND	50	ug/kg wet							08/28/2015	
tertiary Butyl Alcohol	ND	2500	ug/kg wet							08/28/2015	
tertiaryAmylmethylether	ND	250	ug/kg wet							08/28/2015	
Tetrachloroethylene	ND	50	ug/kg wet							08/28/2015	
Tetrahydrofuran	ND	250	ug/kg wet							08/28/2015	
Toluene	ND	50	ug/kg wet							08/28/2015	
trans-1,2-Dichloroethylene	ND	50	ug/kg wet							08/28/2015	
trans-1,3-Dichloropropylene	ND	50	ug/kg wet							08/28/2015	
trans-1,4-Dichloro-2-butene	ND	250	ug/kg wet							08/28/2015	



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ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2803 - Method: 5035

Prepared: 08/28/2015

Blank (B5H2803-BLK1)

Trichloroethylene	ND	50	ug/kg wet							08/28/2015	
Trichlorofluoromethane	ND	50	ug/kg wet							08/28/2015	
Vinyl chloride	ND	50	ug/kg wet							08/28/2015	
Surrogate: Bromofluorobenzene	51.9		ug/L	50.00		104	40.3-194			08/28/2015	
Surrogate: Dibromofluoromethane	49.1		ug/L	50.00		98.2	52.1-217			08/28/2015	
Surrogate: Toluene-d8	49.8		ug/L	50.00		99.5	55.4-196			08/28/2015	

LCS (B5H2803-BS1)

1,1,1,2-Tetrachloroethane	2620	50	ug/kg wet	2500		105	70-130			08/28/2015	
1,1,1-Trichloroethane	2700	50	ug/kg wet	2500		108	70-130			08/28/2015	
1,1,2,2-Tetrachloroethane	2980	50	ug/kg wet	2500		119	70-130			08/28/2015	
1,1,2-Trichloroethane	2620	50	ug/kg wet	2500		105	70-130			08/28/2015	
1,1-Dichloroethane	2660	50	ug/kg wet	2500		106	70-130			08/28/2015	
1,1-Dichloroethylene	2400	50	ug/kg wet	2500		96.0	70-130			08/28/2015	
1,2,3-Trichlorobenzene	2530	250	ug/kg wet	2500		101	70-130			08/28/2015	
1,2,3-Trichloropropane	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
1,2,3-Trimethylbenzene	2600	50	ug/kg wet	2500		104	70-130			08/28/2015	
1,2,4-Trichlorobenzene	2550	250	ug/kg wet	2500		102	70-130			08/28/2015	
1,2,4-Trimethylbenzene	2730	50	ug/kg wet	2500		109	70-130			08/28/2015	
1,2-Dibromo-3-chloropropane	2600	250	ug/kg wet	2500		104	70-130			08/28/2015	
1,2-Dibromoethane	2650	50	ug/kg wet	2500		106	70-130			08/28/2015	
1,2-Dichlorobenzene	2640	50	ug/kg wet	2500		106	70-130			08/28/2015	
1,2-Dichloroethane	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
1,2-Dichloropropane	2620	50	ug/kg wet	2500		105	70-130			08/28/2015	
1,3,5-Trimethylbenzene	2730	50	ug/kg wet	2500		109	70-130			08/28/2015	
1,3-Dichlorobenzene	2690	50	ug/kg wet	2500		107	70-130			08/28/2015	
1,4-Dichlorobenzene	2660	50	ug/kg wet	2500		106	70-130			08/28/2015	
2-Butanone (MEK)	3730	250	ug/kg wet	2500		149	70-130			08/28/2015	A06, A09
2-Hexanone	3460	250	ug/kg wet	2500		138	70-130			08/28/2015	A06, A09
2-Methylnaphthalene	2470	250	ug/kg wet	2500		99.0	70-130			08/28/2015	X
2-Propanone (acetone)	4650	1000	ug/kg wet	2500		186	70-130			08/28/2015	A06, A09, A11
4-Methyl-2-pentanone (MIBK)	2670	250	ug/kg wet	2500		107	70-130			08/28/2015	
Acrylonitrile	2530	250	ug/kg wet	2500		101	70-130			08/28/2015	
Benzene	2600	50	ug/kg wet	2500		104	70-130			08/28/2015	
Bromobenzene	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
Bromochloromethane	2620	50	ug/kg wet	2500		105	70-130			08/28/2015	
Bromodichloromethane	2820	50	ug/kg wet	2500		113	70-130			08/28/2015	
Bromoform	2580	50	ug/kg wet	2500		103	70-130			08/28/2015	
Bromomethane	2750	250	ug/kg wet	2500		110	70-130			08/28/2015	
Carbon disulfide	2700	50	ug/kg wet	2500		108	70-130			08/28/2015	
Carbon tetrachloride	2510	50	ug/kg wet	2500		100	70-130			08/28/2015	
Chlorobenzene	2600	50	ug/kg wet	2500		104	70-130			08/28/2015	
Chloroethane	2840	250	ug/kg wet	2500		114	70-130			08/28/2015	
Chloroform	2690	50	ug/kg wet	2500		108	70-130			08/28/2015	
Chloromethane	2460	250	ug/kg wet	2500		98.3	70-130			08/28/2015	
cis-1,2-Dichloroethylene	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
cis-1,3-Dichloropropylene	2730	50	ug/kg wet	2500		109	70-130			08/28/2015	





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ENVIRONMENTAL LABORATORY**

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9

**Organics-Volatiles - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H2803 - Method: 5035**

**Prepared: 08/28/2015**

**LCS (B5H2803-BS1)**

Cyclohexane	2430	250	ug/kg wet	2500		97.2	70-130			08/28/2015	
Dibromochloromethane	2770	50	ug/kg wet	2500		111	70-130			08/28/2015	
Dibromomethane	2490	50	ug/kg wet	2500		99.5	70-130			08/28/2015	
Dichlorodifluoromethane	2330	250	ug/kg wet	2500		93.3	70-130			08/28/2015	
Diethyl ether	2710	250	ug/kg wet	2500		108	70-130			08/28/2015	
Diisopropyl Ether	2670	250	ug/kg wet	2500		107	70-130			08/28/2015	
Ethylbenzene	2700	50	ug/kg wet	2500		108	70-130			08/28/2015	
Ethyltertiarybutylether	2660	250	ug/kg wet	2500		107	70-130			08/28/2015	
Hexachloroethane	2730	250	ug/kg wet	2500		109	70-130			08/28/2015	
Isopropylbenzene	2750	50	ug/kg wet	2500		110	70-130			08/28/2015	
m & p - Xylene	5330	100	ug/kg wet	5000		107	70-130			08/28/2015	
Methyl iodide	2510	50	ug/kg wet	2500		100	70-130			08/28/2015	
Methylene chloride	2700	250	ug/kg wet	2500		108	70-130			08/28/2015	
Methyltertiarybutylether	2690	50	ug/kg wet	2500		108	70-130			08/28/2015	
Naphthalene	2690	250	ug/kg wet	2500		107	70-130			08/28/2015	X
n-Butylbenzene	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
n-Propylbenzene	2760	50	ug/kg wet	2500		110	70-130			08/28/2015	
o-Xylene	2630	50	ug/kg wet	2500		105	70-130			08/28/2015	
p-Isopropyl toluene	2600	50	ug/kg wet	2500		104	70-130			08/28/2015	
sec-Butylbenzene	2680	50	ug/kg wet	2500		107	70-130			08/28/2015	
Styrene	2670	50	ug/kg wet	2500		107	70-130			08/28/2015	
tert-Butylbenzene	2590	50	ug/kg wet	2500		104	70-130			08/28/2015	
tertiary Butyl Alcohol	12200	2500	ug/kg wet	12500		97.7	70-130			08/28/2015	
tertiary Amyl methyl ether	2620	250	ug/kg wet	2500		105	70-130			08/28/2015	
Tetrachloroethylene	2500	50	ug/kg wet	2500		100	70-130			08/28/2015	
Tetrahydrofuran	2520	250	ug/kg wet	2500		101	70-130			08/28/2015	
Toluene	2570	50	ug/kg wet	2500		103	70-130			08/28/2015	
trans-1,2-Dichloroethylene	2660	50	ug/kg wet	2500		106	70-130			08/28/2015	
trans-1,3-Dichloropropylene	2530	50	ug/kg wet	2500		101	70-130			08/28/2015	
trans-1,4-Dichloro-2-butene	2690	250	ug/kg wet	2500		107	70-130			08/28/2015	
Trichloroethylene	2440	50	ug/kg wet	2500		97.6	70-130			08/28/2015	
Trichlorofluoromethane	2540	50	ug/kg wet	2500		102	70-130			08/28/2015	
Vinyl chloride	2480	50	ug/kg wet	2500		99.1	70-130			08/28/2015	
Surrogate: Bromofluorobenzene	50.5		ug/L	50.00		101	40.3-194			08/28/2015	
Surrogate: Dibromofluoromethane	51.0		ug/L	50.00		102	52.1-217			08/28/2015	
Surrogate: Toluene-d8	49.8		ug/L	50.00		99.7	55.4-196			08/28/2015	

**Matrix Spike (B5H2803-MS1)**

**Source: 1508223-04**

1,1,1,2-Tetrachloroethane	4810	96	ug/kg dry	4793	ND	100	70-130			08/28/2015	
1,1,1-Trichloroethane	4930	96	ug/kg dry	4793	ND	103	70-130			08/28/2015	
1,1,2,2-Tetrachloroethane	5160	96	ug/kg dry	4793	ND	108	70-130			08/28/2015	
1,1,2-Trichloroethane	4750	96	ug/kg dry	4793	ND	99.1	70-130			08/28/2015	
1,1-Dichloroethane	4960	96	ug/kg dry	4793	ND	103	70-130			08/28/2015	
1,1-Dichloroethylene	4420	96	ug/kg dry	4793	ND	92.3	70-130			08/28/2015	
1,2,3-Trichlorobenzene	4500	480	ug/kg dry	4793	ND	94.0	70-130			08/28/2015	
1,2,3-Trichloropropane	4610	96	ug/kg dry	4793	ND	96.1	70-130			08/28/2015	
1,2,3-Trimethylbenzene	4680	96	ug/kg dry	4793	ND	97.7	70-130			08/28/2015	
1,2,4-Trichlorobenzene	4520	480	ug/kg dry	4793	ND	94.3	70-130			08/28/2015	



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TEL: (517) 335-9800  
FAX: (517) 335-9600

## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2803 - Method: 5035

Prepared: 08/27/2015

## Matrix Spike (B5H2803-MS1)

Source: 1508223-04

1,2,4-Trimethylbenzene	4890	96	ug/kg dry	4793	ND	102	70-130			08/28/2015	
1,2-Dibromo-3-chloropropane	4620	480	ug/kg dry	4793	ND	96.4	70-130			08/28/2015	
1,2-Dibromoethane	4830	96	ug/kg dry	4793	ND	101	70-130			08/28/2015	
1,2-Dichlorobenzene	4730	96	ug/kg dry	4793	ND	98.6	70-130			08/28/2015	
1,2-Dichloroethane	4900	96	ug/kg dry	4793	ND	102	70-130			08/28/2015	
1,2-Dichloropropane	4770	96	ug/kg dry	4793	ND	99.6	70-130			08/28/2015	
1,3,5-Trimethylbenzene	4860	96	ug/kg dry	4793	ND	101	70-130			08/28/2015	
1,3-Dichlorobenzene	4800	96	ug/kg dry	4793	ND	100	70-130			08/28/2015	
1,4-Dichlorobenzene	4770	96	ug/kg dry	4793	ND	99.6	70-130			08/28/2015	
2-Butanone (MEK)	4360	480	ug/kg dry	4793	ND	91.0	70-130			08/28/2015	A06
2-Hexanone	4570	480	ug/kg dry	4793	ND	95.4	70-130			08/28/2015	A06
2-Methylnaphthalene	4640	480	ug/kg dry	4793	ND	96.9	70-130			08/28/2015	X
2-Propanone (acetone)	4060	1900	ug/kg dry	4793	ND	84.6	70-130			08/28/2015	A06, A11
4-Methyl-2-pentanone (MIBK)	4640	480	ug/kg dry	4793	ND	96.8	70-130			08/28/2015	
Acrylonitrile	4630	480	ug/kg dry	4793	ND	96.5	70-130			08/28/2015	
Benzene	4830	96	ug/kg dry	4793	ND	101	70-130			08/28/2015	
Bromobenzene	4780	96	ug/kg dry	4793	ND	99.7	70-130			08/28/2015	
Bromochloromethane	4770	96	ug/kg dry	4793	ND	99.5	70-130			08/28/2015	
Bromodichloromethane	5030	96	ug/kg dry	4793	ND	105	70-130			08/28/2015	
Bromoform	4500	96	ug/kg dry	4793	ND	93.8	70-130			08/28/2015	
Bromomethane	5140	480	ug/kg dry	4793	ND	107	70-130			08/28/2015	
Carbon disulfide	4820	96	ug/kg dry	4793	ND	100	70-130			08/28/2015	
Carbon tetrachloride	4530	96	ug/kg dry	4793	ND	94.5	70-130			08/28/2015	
Chlorobenzene	4760	96	ug/kg dry	4793	ND	99.3	70-130			08/28/2015	
Chloroethane	5220	480	ug/kg dry	4793	ND	109	70-130			08/28/2015	
Chloroform	5030	96	ug/kg dry	4793	ND	105	70-130			08/28/2015	
Chloromethane	4510	480	ug/kg dry	4793	ND	94.1	70-130			08/28/2015	
cis-1,2-Dichloroethylene	4940	96	ug/kg dry	4793	ND	103	70-130			08/28/2015	
cis-1,3-Dichloropropylene	4790	96	ug/kg dry	4793	ND	100	70-130			08/28/2015	
Cyclohexane	4520	480	ug/kg dry	4793	ND	94.4	70-130			08/28/2015	
Dibromochloromethane	4950	96	ug/kg dry	4793	ND	103	70-130			08/28/2015	
Dibromomethane	4570	96	ug/kg dry	4793	ND	95.4	70-130			08/28/2015	
Dichlorodifluoromethane	4430	480	ug/kg dry	4793	ND	92.5	70-130			08/28/2015	
Diethyl ether	4880	480	ug/kg dry	4793	ND	102	70-130			08/28/2015	
Diisopropyl Ether	4860	480	ug/kg dry	4793	ND	101	70-130			08/28/2015	
Ethylbenzene	4890	96	ug/kg dry	4793	ND	102	70-130			08/28/2015	
Ethyltertiarybutylether	4840	480	ug/kg dry	4793	ND	101	70-130			08/28/2015	
Hexachloroethane	4550	480	ug/kg dry	4793	ND	94.9	70-130			08/28/2015	
Isopropylbenzene	4990	96	ug/kg dry	4793	ND	104	70-130			08/28/2015	
m & p - Xylene	9860	190	ug/kg dry	9586	ND	103	70-130			08/28/2015	
Methyl iodide	4720	96	ug/kg dry	4793	ND	98.5	70-130			08/28/2015	
Methylene chloride	5050	480	ug/kg dry	4793	ND	105	70-130			08/28/2015	
Methyltertiarybutylether	4970	96	ug/kg dry	4793	ND	104	70-130			08/28/2015	
Naphthalene	5100	480	ug/kg dry	4793	ND	106	70-130			08/28/2015	X
n-Butylbenzene	4640	96	ug/kg dry	4793	ND	96.9	70-130			08/28/2015	
n-Propylbenzene	4850	96	ug/kg dry	4793	ND	101	70-130			08/28/2015	
O-Xylene	4860	96	ug/kg dry	4793	ND	101	70-130			08/28/2015	
Isopropyl toluene	4660	96	ug/kg dry	4793	ND	97.2	70-130			08/28/2015	



## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2803 - Method: 5035

Prepared: 08/27/2015

## Matrix Spike (B5H2803-MS1)

Source: 1508223-04

sec-Butylbenzene	4730	96	ug/kg dry	4793	ND	98.7	70-130			08/28/2015	
Styrene	4920	96	ug/kg dry	4793	ND	103	70-130			08/28/2015	
tert-Butylbenzene	4690	96	ug/kg dry	4793	ND	97.9	70-130			08/28/2015	
tertiary Butyl Alcohol	21600	4800	ug/kg dry	23960	ND	90.0	70-130			08/28/2015	
tertiaryAmylmethylether	4840	480	ug/kg dry	4793	ND	101	70-130			08/28/2015	
Tetrachloroethylene	4550	96	ug/kg dry	4793	ND	94.9	70-130			08/28/2015	
Tetrahydrofuran	4480	480	ug/kg dry	4793	ND	93.6	70-130			08/28/2015	
Toluene	4790	96	ug/kg dry	4793	ND	99.9	70-130			08/28/2015	
trans-1,2-Dichloroethylene	4980	96	ug/kg dry	4793	ND	104	70-130			08/28/2015	
trans-1,3-Dichloropropylene	4360	96	ug/kg dry	4793	ND	91.0	70-130			08/28/2015	
trans-1,4-Dichloro-2-butene	4220	480	ug/kg dry	4793	ND	88.0	70-130			08/28/2015	
Trichloroethylene	4630	96	ug/kg dry	4793	ND	96.6	70-130			08/28/2015	
Trichlorofluoromethane	4680	96	ug/kg dry	4793	ND	97.7	70-130			08/28/2015	
Vinyl chloride	4630	96	ug/kg dry	4793	ND	96.6	70-130			08/28/2015	
Surrogate: Bromofluorobenzene	91.9		ug/kg dry	74.42		124	40.3-194			08/28/2015	
Surrogate: Dibromofluoromethane	101		ug/kg dry	74.42		136	52.1-217			08/28/2015	
Surrogate: Toluene-d8	96.8		ug/kg dry	74.42		130	55.4-196			08/28/2015	

## Matrix Spike Dup (B5H2803-MSD1)

Source: 1508223-04

1,1,1,2-Tetrachloroethane	4810	96	ug/kg dry	4793	ND	100	70-130	0.0241	30	08/28/2015	
1,1,1-Trichloroethane	4930	96	ug/kg dry	4793	ND	103	70-130	0.0475	30	08/28/2015	
1,1,2,2-Tetrachloroethane	5180	96	ug/kg dry	4793	ND	108	70-130	0.463	30	08/28/2015	
1,1,2-Trichloroethane	4780	96	ug/kg dry	4793	ND	99.7	70-130	0.603	30	08/28/2015	
1,1-Dichloroethane	4970	96	ug/kg dry	4793	ND	104	70-130	0.146	30	08/28/2015	
1,1-Dichloroethylene	4520	96	ug/kg dry	4793	ND	94.3	70-130	2.18	30	08/28/2015	
1,2,3-Trichlorobenzene	4570	480	ug/kg dry	4793	ND	95.4	70-130	1.50	30	08/28/2015	
1,2,3-Trichloropropane	4650	96	ug/kg dry	4793	ND	97.0	70-130	0.910	30	08/28/2015	
1,2,3-Trimethylbenzene	4780	96	ug/kg dry	4793	ND	99.7	70-130	2.07	30	08/28/2015	
1,2,4-Trichlorobenzene	4560	480	ug/kg dry	4793	ND	95.2	70-130	0.967	30	08/28/2015	
1,2,4-Trimethylbenzene	4990	96	ug/kg dry	4793	ND	104	70-130	2.17	30	08/28/2015	
1,2-Dibromo-3-chloropropane	4710	480	ug/kg dry	4793	ND	98.3	70-130	1.98	30	08/28/2015	
1,2-Dibromoethane	4850	96	ug/kg dry	4793	ND	101	70-130	0.407	30	08/28/2015	
1,2-Dichlorobenzene	4810	96	ug/kg dry	4793	ND	100	70-130	1.76	30	08/28/2015	
1,2-Dichloroethane	5010	96	ug/kg dry	4793	ND	104	70-130	2.09	30	08/28/2015	
1,2-Dichloropropane	4860	96	ug/kg dry	4793	ND	101	70-130	1.75	30	08/28/2015	
1,3,5-Trimethylbenzene	4920	96	ug/kg dry	4793	ND	103	70-130	1.25	30	08/28/2015	
1,3-Dichlorobenzene	4840	96	ug/kg dry	4793	ND	101	70-130	0.838	30	08/28/2015	
1,4-Dichlorobenzene	4850	96	ug/kg dry	4793	ND	101	70-130	1.69	30	08/28/2015	
2-Butanone (MEK)	4620	480	ug/kg dry	4793	ND	96.4	70-130	5.72	30	08/28/2015	A06
2-Hexanone	4590	480	ug/kg dry	4793	ND	95.7	70-130	0.324	30	08/28/2015	A06
2-Methylnaphthalene	4680	480	ug/kg dry	4793	ND	97.7	70-130	0.813	30	08/28/2015	X
2-Propanone (acetone)	4380	1900	ug/kg dry	4793	ND	91.5	70-130	7.74	30	08/28/2015	A06, A11
4-Methyl-2-pentanone (MIBK)	4800	480	ug/kg dry	4793	ND	100	70-130	3.32	30	08/28/2015	
Acrylonitrile	4600	480	ug/kg dry	4793	ND	96.0	70-130	0.523	30	08/28/2015	
Benzene	4810	96	ug/kg dry	4793	ND	100	70-130	0.318	30	08/28/2015	
Bromobenzene	4870	96	ug/kg dry	4793	ND	102	70-130	1.85	30	08/28/2015	
Bromochloromethane	4740	96	ug/kg dry	4793	ND	99.0	70-130	0.562	30	08/28/2015	
Bromodichloromethane	5090	96	ug/kg dry	4793	ND	106	70-130	1.31	30	08/28/2015	




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 ENVIRONMENTAL LABORATORY

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

## Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
<b>Batch B5H2803 - Method: 5035</b>											
<b>Prepared: 08/27/2015</b>											
<b>Matrix Spike Dup (B5H2803-MSD1) Source: 1508223-04</b>											
Bromoform	4740	96	ug/kg dry	4793	ND	98.9	70-130	5.26	30	08/28/2015	
Bromomethane	5080	480	ug/kg dry	4793	ND	106	70-130	1.21	30	08/28/2015	
Carbon disulfide	4960	96	ug/kg dry	4793	ND	103	70-130	2.93	30	08/28/2015	
Carbon tetrachloride	4570	96	ug/kg dry	4793	ND	95.3	70-130	0.857	30	08/28/2015	
Chlorobenzene	4850	96	ug/kg dry	4793	ND	101	70-130	1.95	30	08/28/2015	
Chloroethane	5190	480	ug/kg dry	4793	ND	108	70-130	0.576	30	08/28/2015	
Chloroform	4950	96	ug/kg dry	4793	ND	103	70-130	1.56	30	08/28/2015	
Chloromethane	4430	480	ug/kg dry	4793	ND	92.5	70-130	1.64	30	08/28/2015	
cis-1,2-Dichloroethylene	5020	96	ug/kg dry	4793	ND	105	70-130	1.64	30	08/28/2015	
cis-1,3-Dichloropropylene	4860	96	ug/kg dry	4793	ND	101	70-130	1.38	30	08/28/2015	
Cyclohexane	4530	480	ug/kg dry	4793	ND	94.5	70-130	0.118	30	08/28/2015	
Dibromochloromethane	4980	96	ug/kg dry	4793	ND	104	70-130	0.580	30	08/28/2015	
Dibromomethane	4590	96	ug/kg dry	4793	ND	95.8	70-130	0.483	30	08/28/2015	
Dichlorodifluoromethane	4180	480	ug/kg dry	4793	ND	87.3	70-130	5.82	30	08/28/2015	
Diethyl ether	4940	480	ug/kg dry	4793	ND	103	70-130	1.15	30	08/28/2015	
Diisopropyl Ether	4960	480	ug/kg dry	4793	ND	103	70-130	1.99	30	08/28/2015	
Ethylbenzene	4970	96	ug/kg dry	4793	ND	104	70-130	1.57	30	08/28/2015	
ethyltertiarybutylether	4940	480	ug/kg dry	4793	ND	103	70-130	2.14	30	08/28/2015	
hexachloroethane	4750	480	ug/kg dry	4793	ND	99.2	70-130	4.43	30	08/28/2015	
Isopropylbenzene	4980	96	ug/kg dry	4793	ND	104	70-130	0.250	30	08/28/2015	
m & p - Xylene	9810	190	ug/kg dry	9586	ND	102	70-130	0.492	30	08/28/2015	
Methyl iodide	4980	96	ug/kg dry	4793	ND	104	70-130	5.37	30	08/28/2015	
Methylene chloride	5110	480	ug/kg dry	4793	ND	107	70-130	1.07	30	08/28/2015	
Methyltertiarybutylether	5020	96	ug/kg dry	4793	ND	105	70-130	0.976	30	08/28/2015	
Naphthalene	5050	480	ug/kg dry	4793	ND	105	70-130	0.880	30	08/28/2015	X
n-Butylbenzene	4670	96	ug/kg dry	4793	ND	97.4	70-130	0.503	30	08/28/2015	
n-Propylbenzene	4950	96	ug/kg dry	4793	ND	103	70-130	1.90	30	08/28/2015	
o-Xylene	4860	96	ug/kg dry	4793	ND	101	70-130	0.133	30	08/28/2015	
p-Isopropyl toluene	4730	96	ug/kg dry	4793	ND	98.6	70-130	1.41	30	08/28/2015	
sec-Butylbenzene	4790	96	ug/kg dry	4793	ND	100	70-130	1.31	30	08/28/2015	
Styrene	4960	96	ug/kg dry	4793	ND	103	70-130	0.796	30	08/28/2015	
tert-Butylbenzene	4730	96	ug/kg dry	4793	ND	98.7	70-130	0.864	30	08/28/2015	
tertiary Butyl Alcohol	21900	4800	ug/kg dry	23960	ND	91.3	70-130	1.53	30	08/28/2015	
tertiary Amyl methyl ether	4910	480	ug/kg dry	4793	ND	102	70-130	1.57	30	08/28/2015	
Tetrachloroethylene	4570	96	ug/kg dry	4793	ND	95.4	70-130	0.513	30	08/28/2015	
Tetrahydrofuran	4420	480	ug/kg dry	4793	ND	92.2	70-130	1.48	30	08/28/2015	
Toluene	4760	96	ug/kg dry	4793	ND	99.3	70-130	0.615	30	08/28/2015	
trans-1,2-Dichloroethylene	4940	96	ug/kg dry	4793	ND	103	70-130	0.827	30	08/28/2015	
trans-1,3-Dichloropropylene	4480	96	ug/kg dry	4793	ND	93.4	70-130	2.65	30	08/28/2015	
trans-1,4-Dichloro-2-butene	4230	480	ug/kg dry	4793	ND	88.3	70-130	0.418	30	08/28/2015	
Trichloroethylene	4690	96	ug/kg dry	4793	ND	97.9	70-130	1.36	30	08/28/2015	
Trichlorofluoromethane	4610	96	ug/kg dry	4793	ND	96.2	70-130	1.62	30	08/28/2015	
Vinyl chloride	4620	96	ug/kg dry	4793	ND	96.5	70-130	0.170	30	08/28/2015	
Surrogate: Bromofluorobenzene	90.9		ug/kg dry	74.42		122	40.3-194			08/28/2015	
Surrogate: Dibromofluoromethane	102		ug/kg dry	74.42		137	52.1-217			08/28/2015	
Surrogate: Toluene-d8	97.0		ug/kg dry	74.42		130	55.4-196			08/28/2015	



## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## Blank (B5H2808-BLK1)

1,2,4-Trichlorobenzene	ND	200	ug/kg wet							09/08/2015	
2,4,5-Trichlorophenol	ND	330	ug/kg wet							09/08/2015	
2,4,6-Trichlorophenol	ND	330	ug/kg wet							09/08/2015	
2,4-Dichlorophenol	ND	330	ug/kg wet							09/08/2015	
2,4-Dimethylphenol	ND	330	ug/kg wet							09/08/2015	
2,4-Dinitrophenol	ND	1700	ug/kg wet							09/08/2015	
2,4-Dinitrotoluene	ND	250	ug/kg wet							09/08/2015	
2,6-Dinitrotoluene	ND	250	ug/kg wet							09/08/2015	
2-Chloronaphthalene	ND	200	ug/kg wet							09/08/2015	
2-Chlorophenol	ND	330	ug/kg wet							09/08/2015	
2-Methyl-4,6-dinitrophenol	ND	1700	ug/kg wet							09/08/2015	
2-Methylnaphthalene	ND	250	ug/kg wet							09/08/2015	
2-Methylphenol (o-Cresol)	ND	330	ug/kg wet							09/08/2015	
2-Nitroaniline	ND	500	ug/kg wet							09/08/2015	
2-Nitrophenol	ND	330	ug/kg wet							09/08/2015	
3 & 4-Methylphenol	ND	660	ug/kg wet							09/08/2015	
3-Nitroaniline	ND	500	ug/kg wet							09/08/2015	
4-Bromophenyl phenyl ether	ND	200	ug/kg wet							09/08/2015	
4-Chloro-3-methyl-phenol	ND	200	ug/kg wet							09/08/2015	
4-Chlorodiphenylether	ND	100	ug/kg wet							09/08/2015	
4-Nitroaniline	ND	500	ug/kg wet							09/08/2015	
4-Nitrophenol	ND	1700	ug/kg wet							09/08/2015	
Acenaphthene	ND	100	ug/kg wet							09/08/2015	
Acenaphthylene	ND	100	ug/kg wet							09/08/2015	
Anthracene	ND	100	ug/kg wet							09/08/2015	
Azobenzene	ND	200	ug/kg wet							09/08/2015	
Benz[a]anthracene	ND	100	ug/kg wet							09/08/2015	
Benzo[a]pyrene	ND	200	ug/kg wet							09/08/2015	
Benzo[b]fluoranthene	ND	200	ug/kg wet							09/08/2015	
Benzo[g,h,i]perylene	ND	200	ug/kg wet							09/08/2015	
Benzo[k]fluoranthene	ND	200	ug/kg wet							09/08/2015	
Benzyl Alcohol	ND	2500	ug/kg wet							09/08/2015	
Bis(2-chloroethoxy)methane	ND	200	ug/kg wet							09/08/2015	
Bis(2-chloroethyl)ether	ND	100	ug/kg wet							09/08/2015	
Bis(2-chloroisopropyl)ether	ND	100	ug/kg wet							09/08/2015	
Bis(2-ethylhexyl)phthalate	ND	250	ug/kg wet							09/08/2015	
Butyl benzyl phthalate	ND	250	ug/kg wet							09/08/2015	
Carbazole	ND	250	ug/kg wet							09/08/2015	
Chrysene	ND	100	ug/kg wet							09/08/2015	
Dibenz[a,h]anthracene	ND	200	ug/kg wet							09/08/2015	
Dibenzofuran	ND	250	ug/kg wet							09/08/2015	
Diethylphthalate	ND	250	ug/kg wet							09/08/2015	
Dimethyl phthalate	ND	250	ug/kg wet							09/08/2015	
Di-n-butyl phthalate	ND	250	ug/kg wet							09/08/2015	
Di-n-octyl phthalate	ND	250	ug/kg wet							09/08/2015	
Fluoranthene	ND	100	ug/kg wet							09/08/2015	
Fluorene	ND	100	ug/kg wet							09/08/2015	
Hexachlorobenzene	ND	200	ug/kg wet							09/08/2015	





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FAX: (517) 335-9600

## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## Blank (B5H2808-BLK1)

Hexachlorobutadiene	ND	100	ug/kg wet							09/08/2015	
Hexachlorocyclopentadiene	ND	1000	ug/kg wet							09/08/2015	
Hexachloroethane	ND	100	ug/kg wet							09/08/2015	
Indeno(1,2,3-c,d)pyrene	ND	200	ug/kg wet							09/08/2015	
Isophorone	ND	100	ug/kg wet							09/08/2015	
Naphthalene	ND	100	ug/kg wet							09/08/2015	
Nitrobenzene	ND	200	ug/kg wet							09/08/2015	
N-Nitrosodimethylamine	ND	250	ug/kg wet							09/08/2015	
N-Nitrosodi-n-propylamine	ND	200	ug/kg wet							09/08/2015	
N-Nitrosodiphenylamine	ND	200	ug/kg wet							09/08/2015	
Pentachlorophenol	ND	1700	ug/kg wet							09/08/2015	
Phenanthrene	ND	100	ug/kg wet							09/08/2015	
Phenol	ND	330	ug/kg wet							09/08/2015	
Pyrene	ND	100	ug/kg wet							09/08/2015	
Surrogate: 2,4,6-Tribromophenol	2390		ug/kg wet	4000		59.8	20.3-115			09/08/2015	
Surrogate: 2-Fluorobiphenyl	1420		ug/kg wet	2000		71.2	32.9-115			09/08/2015	
Surrogate: 2-Fluorophenol	2300		ug/kg wet	4000		57.5	23.7-115			09/08/2015	
Surrogate: Nitrobenzene-d5	1370		ug/kg wet	2000		68.3	31.8-115			09/08/2015	
Surrogate: Phenol-d6	2640		ug/kg wet	4000		65.9	29.3-115			09/08/2015	
Surrogate: p-Terphenyl-d14	1740		ug/kg wet	2000		86.8	38.5-115			09/08/2015	

## LCS (B5H2808-BS1)

1,2,4-Trichlorobenzene	1350	200	ug/kg wet	2000		67.7	36.1-90.5			09/08/2015	
2,4,5-Trichlorophenol	3240	330	ug/kg wet	4000		81.1	42.9-114.1			09/08/2015	
2,4,6-Trichlorophenol	3130	330	ug/kg wet	4000		78.2	40.1-106.5			09/08/2015	
2,4-Dichlorophenol	3080	330	ug/kg wet	4000		76.9	41.3-105.1			09/08/2015	
2,4-Dimethylphenol	1730	330	ug/kg wet	4000		43.2	29.1-103.6			09/08/2015	
2,4-Dinitrophenol	2160	1700	ug/kg wet	4000		54.0	10-123			09/08/2015	
2,4-Dinitrotoluene	1580	250	ug/kg wet	2000		79.0	49.3-111.6			09/08/2015	
2,6-Dinitrotoluene	1620	250	ug/kg wet	2000		81.0	49.7-108			09/08/2015	
2-Chloronaphthalene	1470	200	ug/kg wet	2000		73.6	41.4-98.7			09/08/2015	
2-Chlorophenol	2830	330	ug/kg wet	4000		70.7	38.8-92.2			09/08/2015	
2-Methyl-4,6-dinitrophenol	2780	1700	ug/kg wet	4000		69.6	37.5-107.3			09/08/2015	
2-Methylnaphthalene	1450	250	ug/kg wet	2000		72.6	38.6-94.3			09/08/2015	
2-Methylphenol (o-Cresol)	2720	330	ug/kg wet	4000		68.1	37.6-99.4			09/08/2015	
2-Nitroaniline	1530	500	ug/kg wet	2000		76.7	48.4-105.5			09/08/2015	
2-Nitrophenol	2920	330	ug/kg wet	4000		73.0	39.2-96.3			09/08/2015	
3 & 4-Methylphenol	2870	660	ug/kg wet	4000		71.8	38.5-100.7			09/08/2015	
3-Nitroaniline	1110	500	ug/kg wet	2000		55.5	16.5-118.9			09/08/2015	
4-Bromophenyl phenyl ether	1660	200	ug/kg wet	2000		82.8	46.6-111.4			09/08/2015	
4-Chloro-3-methyl-phenol	3200	200	ug/kg wet	4000		80.0	44.2-111.5			09/08/2015	
4-Chlorodiphenylether	1520	100	ug/kg wet	2000		75.8	45.5-105.3			09/08/2015	
4-Nitroaniline	1210	500	ug/kg wet	2000		60.4	22.1-117.4			09/08/2015	
4-Nitrophenol	2660	1700	ug/kg wet	4000		66.5	25.4-124			09/08/2015	
Acenaphthene	1540	100	ug/kg wet	2000		76.9	43.6-101.5			09/08/2015	
Acenaphthylene	1620	100	ug/kg wet	2000		81.0	46.3-108.7			09/08/2015	
Anthracene	1630	100	ug/kg wet	2000		81.3	48.9-106.4			09/08/2015	
Toluene	1690	200	ug/kg wet	2000		84.4	45.5-109.9			09/08/2015	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## LCS (B5H2808-BS1)

Benz[a]anthracene	1650	100	ug/kg wet	2000		82.6	53.1-107.9			09/08/2015	
Benzo[a]pyrene	1610	200	ug/kg wet	2000		80.5	47.5-113.5			09/08/2015	
Benzo[b]fluoranthene	1610	200	ug/kg wet	2000		80.3	49.8-112.3			09/08/2015	
Benzo[g,h,i]perylene	1650	200	ug/kg wet	2000		82.3	25.7-120.5			09/08/2015	
Benzo[k]fluoranthene	1570	200	ug/kg wet	2000		78.4	49.6-112.4			09/08/2015	
Benzyl Alcohol	2950	2500	ug/kg wet	4000		73.8	19.5-106.2			09/08/2015	
Bis(2-chloroethoxy)methane	1600	200	ug/kg wet	2000		80.1	36.6-95.2			09/08/2015	
Bis(2-chloroethyl)ether	1330	100	ug/kg wet	2000		66.5	32.5-89.4			09/08/2015	
Bis(2-chloroisopropyl)ether	1320	100	ug/kg wet	2000		66.2	24.1-100.9			09/08/2015	
Bis(2-ethylhexyl)phthalate	1540	250	ug/kg wet	2000		77.2	48.4-121.6			09/08/2015	
Butyl benzyl phthalate	1670	250	ug/kg wet	2000		83.5	49.5-117.3			09/08/2015	
Carbazole	1510	250	ug/kg wet	2000		75.7	45.9-110.5			09/08/2015	
Chrysene	1710	100	ug/kg wet	2000		85.6	54-109.3			09/08/2015	
Dibenz[a,h]anthracene	1670	200	ug/kg wet	2000		83.5	32.7-127			09/08/2015	
Dibenzofuran	1510	250	ug/kg wet	2000		75.3	45.8-99.3			09/08/2015	
Diethylphthalate	1620	250	ug/kg wet	2000		80.8	49.6-110.7			09/08/2015	
Dimethyl phthalate	1620	250	ug/kg wet	2000		81.1	51-104.6			09/08/2015	
Di-n-butyl phthalate	1580	250	ug/kg wet	2000		78.9	53.5-114.4			09/08/2015	
Di-n-octyl phthalate	1500	250	ug/kg wet	2000		75.0	49.8-123.9			09/08/2015	
Fluoranthene	1430	100	ug/kg wet	2000		71.7	48.8-112.4			09/08/2015	
Fluorene	1540	100	ug/kg wet	2000		77.0	45.9-103.5			09/08/2015	
Hexachlorobenzene	1650	200	ug/kg wet	2000		82.4	46.4-109.9			09/08/2015	
Hexachlorobutadiene	1380	100	ug/kg wet	2000		68.9	30.2-96.2			09/08/2015	
Hexachlorocyclopentadiene	1440	1000	ug/kg wet	2000		71.9	16.5-91.7			09/08/2015	
Hexachloroethane	1260	100	ug/kg wet	2000		63.0	30.4-82.9			09/08/2015	
Indeno(1,2,3-c,d)pyrene	1670	200	ug/kg wet	2000		83.6	36.6-126.1			09/08/2015	
Isophorone	1440	100	ug/kg wet	2000		72.1	35.3-93.1			09/08/2015	
Naphthalene	1390	100	ug/kg wet	2000		69.7	36.2-91.2			09/08/2015	
Nitrobenzene	1410	200	ug/kg wet	2000		70.3	38.1-92.5			09/08/2015	
N-Nitrosodimethylamine	1180	250	ug/kg wet	2000		59.0	15.1-103.7			09/08/2015	
N-Nitrosodi-n-propylamine	1500	200	ug/kg wet	2000		74.9	37.8-95.4			09/08/2015	
N-Nitrosodiphenylamine	1630	200	ug/kg wet	2000		81.3	24.3-135.2			09/08/2015	
Pentachlorophenol	2780	1700	ug/kg wet	4000		69.5	10-112.1			09/08/2015	
Phenanthrene	1610	100	ug/kg wet	2000		80.7	50.9-105.9			09/08/2015	
Phenol	2900	330	ug/kg wet	4000		72.4	32.4-98.4			09/08/2015	
Pyrene	1320	100	ug/kg wet	2000		90.8	46.2-113.7			09/08/2015	
Surrogate: 2,4,6-Tribromophenol	3250		ug/kg wet	4000		81.2	20.3-115			09/08/2015	
Surrogate: 2-Fluorobiphenyl	1430		ug/kg wet	2000		71.3	32.9-115			09/08/2015	
Surrogate: 2-Fluorophenol	2530		ug/kg wet	4000		63.3	23.7-115			09/08/2015	
Surrogate: Nitrobenzene-d5	1360		ug/kg wet	2000		68.1	31.8-115			09/08/2015	
Surrogate: Phenol-d6	2800		ug/kg wet	4000		70.1	29.3-115			09/08/2015	
Surrogate: p-Terphenyl-d14	1640		ug/kg wet	2000		81.9	38.5-115			09/08/2015	

## LCS Dup (B5H2808-BSD1)

1,2,4-Trichlorobenzene	1400	200	ug/kg wet	2000		69.8	36.1-90.5	2.96	28.4	09/08/2015	
2,4,5-Trichlorophenol	3380	330	ug/kg wet	4000		84.4	42.9-114.1	4.00	29.4	09/08/2015	
2,4,6-Trichlorophenol	3260	330	ug/kg wet	4000		81.6	40.1-106.5	4.14	28.6	09/08/2015	
2,4-Dichlorophenol	3220	330	ug/kg wet	4000		80.4	41.3-105.1	4.42	23.5	09/08/2015	



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

**Organics-Semivolatiles - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H2808 - Method: 3545 Soil SVOC**

**Prepared: 08/31/2015**

**LCS Dup (B5H2808-BSD1)**

2,4-Dimethylphenol	1980	330	ug/kg wet	4000		49.4	29.1-103.6	13.4	30.1	09/08/2015	
2,4-Dinitrophenol	2270	1700	ug/kg wet	4000		56.8	10-123	5.15	65	09/08/2015	
2,4-Dinitrotoluene	1640	250	ug/kg wet	2000		82.0	49.3-111.6	3.73	29.9	09/08/2015	
2,6-Dinitrotoluene	1680	250	ug/kg wet	2000		84.2	49.7-108	3.86	27.3	09/08/2015	
2-Chloronaphthalene	1500	200	ug/kg wet	2000		75.1	41.4-98.7	2.02	27.9	09/08/2015	
2-Chlorophenol	2840	330	ug/kg wet	4000		71.0	38.8-92.2	0.523	25.8	09/08/2015	
2-Methyl-4,6-dinitrophenol	2880	1700	ug/kg wet	4000		71.9	37.5-107.3	3.31	25.3	09/08/2015	
2-Methylnaphthalene	1500	250	ug/kg wet	2000		75.2	38.6-94.3	3.43	28.1	09/08/2015	
2-Methylphenol (o-Cresol)	2790	330	ug/kg wet	4000		69.8	37.6-99.4	2.49	26.3	09/08/2015	
2-Nitroaniline	1600	500	ug/kg wet	2000		79.9	48.4-105.5	4.14	27.9	09/08/2015	
2-Nitrophenol	3020	330	ug/kg wet	4000		75.5	39.2-96.3	3.34	25.1	09/08/2015	
3,4-Methylphenol	2920	660	ug/kg wet	4000		73.1	38.5-100.7	1.70	28	09/08/2015	
3-Nitroaniline	1200	500	ug/kg wet	2000		60.2	16.5-118.9	8.23	88.7	09/08/2015	
4-Bromophenyl phenyl ether	1690	200	ug/kg wet	2000		84.6	46.6-111.4	2.13	26	09/08/2015	
4-Chloro-3-methyl-phenol	3370	200	ug/kg wet	4000		84.3	44.2-111.5	5.32	25.6	09/08/2015	
4-Chlorodiphenylether	1580	100	ug/kg wet	2000		79.1	45.5-105.3	4.29	29.2	09/08/2015	
4-Nitroaniline	1290	500	ug/kg wet	2000		64.7	22.1-117.4	6.78	50	09/08/2015	
Nitrophenol	2720	1700	ug/kg wet	4000		68.1	25.4-124	2.47	31.8	09/08/2015	
acenaphthene	1590	100	ug/kg wet	2000		79.6	43.6-101.5	3.37	26.1	09/08/2015	
Acenaphthylene	1680	100	ug/kg wet	2000		83.9	46.3-108.7	3.52	27.3	09/08/2015	
Anthracene	1660	100	ug/kg wet	2000		83.1	48.9-106.4	2.22	24.2	09/08/2015	
Azobenzene	1690	200	ug/kg wet	2000		84.3	45.5-109.9	0.0142	27.8	09/08/2015	
Benz[a]anthracene	1670	100	ug/kg wet	2000		83.4	53.1-107.9	0.952	24.5	09/08/2015	
Benz[a]pyrene	1660	200	ug/kg wet	2000		83.0	47.5-113.5	3.03	25.9	09/08/2015	
Benzo[b]fluoranthene	1640	200	ug/kg wet	2000		82.0	49.8-112.3	2.07	26.1	09/08/2015	
Benzo[g,h,i]perylene	1640	200	ug/kg wet	2000		81.9	25.7-120.5	0.490	37.8	09/08/2015	
Benzo[k]fluoranthene	1610	200	ug/kg wet	2000		80.3	49.6-112.4	2.34	25.7	09/08/2015	
Benzyl Alcohol	3010	2500	ug/kg wet	4000		75.3	19.5-106.2	1.94	39.8	09/08/2015	
Bis(2-chloroethoxy)methane	1650	200	ug/kg wet	2000		82.6	36.6-95.2	3.06	29.9	09/08/2015	
Bis(2-chloroethyl)ether	1340	100	ug/kg wet	2000		67.2	32.5-89.4	0.955	30.4	09/08/2015	
Bis(2-chloroisopropyl)ether	1320	100	ug/kg wet	2000		65.8	24.1-100.9	0.521	27.6	09/08/2015	
Bis(2-ethylhexyl)phthalate	1670	250	ug/kg wet	2000		83.3	48.4-121.6	7.65	26.1	09/08/2015	
Butyl benzyl phthalate	1770	250	ug/kg wet	2000		88.4	49.5-117.3	5.68	26.6	09/08/2015	
Carbazole	1530	250	ug/kg wet	2000		76.6	45.9-110.5	1.17	27.5	09/08/2015	
Chrysene	1740	100	ug/kg wet	2000		87.2	54-109.3	1.82	24.4	09/08/2015	
Dibenz[a,h]anthracene	1680	200	ug/kg wet	2000		83.8	32.7-127	0.365	40.3	09/08/2015	
Dibenzofuran	1550	250	ug/kg wet	2000		77.4	45.8-99.3	2.80	25.7	09/08/2015	
Diethylphthalate	1680	250	ug/kg wet	2000		84.1	49.6-110.7	3.98	28.4	09/08/2015	
Dimethyl phthalate	1650	250	ug/kg wet	2000		82.6	51-104.6	1.80	26.5	09/08/2015	
Di-n-butyl phthalate	1640	250	ug/kg wet	2000		82.0	53.5-114.4	3.77	25.4	09/08/2015	
Di-n-octyl phthalate	1540	250	ug/kg wet	2000		77.0	49.8-123.9	2.68	26.6	09/08/2015	
Fluoranthene	1470	100	ug/kg wet	2000		73.7	48.8-112.4	2.68	27.9	09/08/2015	
Fluorene	1600	100	ug/kg wet	2000		80.0	45.9-103.5	3.82	25.2	09/08/2015	
Hexachlorobenzene	1670	200	ug/kg wet	2000		83.4	46.4-109.9	1.21	25.9	09/08/2015	
Hexachlorobutadiene	1430	100	ug/kg wet	2000		71.3	30.2-96.2	3.47	29.9	09/08/2015	
Hexachlorocyclopentadiene	1440	1000	ug/kg wet	2000		71.9	16.5-91.7	0.0367	32.1	09/08/2015	
Hexachloroethane	1260	100	ug/kg wet	2000		63.0	30.4-82.9	0.0597	29.2	09/08/2015	
Indeno(1,2,3-c,d)pyrene	1690	200	ug/kg wet	2000		84.7	36.6-126.1	1.34	34.3	09/08/2015	





## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## LCS Dup (B5H2808-BSD1)

Isophorone	1500	100	ug/kg wet	2000		74.8	35.3-93.1	3.67	30.4	09/08/2015	
Naphthalene	1430	100	ug/kg wet	2000		71.5	36.2-91.2	2.49	27.4	09/08/2015	
Nitrobenzene	1430	200	ug/kg wet	2000		71.7	38.1-92.5	1.92	30.6	09/08/2015	
N-Nitrosodimethylamine	1180	250	ug/kg wet	2000		59.2	15.1-103.7	0.352	34.2	09/08/2015	
N-Nitrosodi-n-propylamine	1510	200	ug/kg wet	2000		75.4	37.8-95.4	0.589	31.3	09/08/2015	
N-Nitrosodiphenylamine	1640	200	ug/kg wet	2000		81.9	24.3-135.2	0.670	49.3	09/08/2015	
Pentachlorophenol	2860	1700	ug/kg wet	4000		71.4	10-112.1	2.66	56	09/08/2015	
Phenanthrene	1670	100	ug/kg wet	2000		83.6	50.9-105.9	3.53	23.3	09/08/2015	
Phenol	2910	330	ug/kg wet	4000		72.7	32.4-98.4	0.386	28.8	09/08/2015	
Pyrene	1910	100	ug/kg wet	2000		95.6	46.2-113.7	5.11	27.9	09/08/2015	
Surrogate: 2,4,6-Tribromophenol	3270		ug/kg wet	4000		81.7	20.3-115			09/08/2015	
Surrogate: 2-Fluorobiphenyl	1480		ug/kg wet	2000		73.9	32.9-115			09/08/2015	
Surrogate: 2-Fluorophenol	2530		ug/kg wet	4000		63.3	23.7-115			09/08/2015	
Surrogate: Nitrobenzene-d5	1380		ug/kg wet	2000		69.0	31.8-115			09/08/2015	
Surrogate: Phenol-d6	2810		ug/kg wet	4000		70.3	29.3-115			09/08/2015	
Surrogate: p-Terphenyl-d14	1710		ug/kg wet	2000		85.3	38.5-115			09/08/2015	

## Matrix Spike (B5H2808-MS1)

Source: 1508223-04

1,2,4-Trichlorobenzene	3510	5700	ug/kg dry	5716	ND	61.4	33.5-99.6			09/08/2015	
2,4,5-Trichlorophenol	6440	9400	ug/kg dry	11430	ND	56.3	41.3-129.6			09/08/2015	
2,4,6-Trichlorophenol	ND	9400	ug/kg dry	11430	ND		37.8-122.8			09/08/2015	V
2,4-Dichlorophenol	5830	9400	ug/kg dry	11430	ND	51.0	40.1-115.1			09/08/2015	
2,4-Dimethylphenol	ND	9400	ug/kg dry	11430	ND		22.5-117.9			09/08/2015	V
2,4-Dinitrophenol	21000	49000	ug/kg dry	11430	ND	184	10-200.9			09/08/2015	
2,4-Dinitrotoluene	3560	7100	ug/kg dry	5716	ND	62.3	48.4-117.6			09/08/2015	
2,6-Dinitrotoluene	3490	7100	ug/kg dry	5716	ND	61.0	50.3-113.1			09/08/2015	
2-Chloronaphthalene	3790	5700	ug/kg dry	5716	ND	66.2	43.9-103.9			09/08/2015	
2-Chlorophenol	6270	9400	ug/kg dry	11430	ND	54.8	34.9-99.2			09/08/2015	
2-Methyl-4,6-dinitrophenol	3890	49000	ug/kg dry	11430	ND	34.1	12.3-124.3			09/08/2015	
2-Methylnaphthalene	4000	7100	ug/kg dry	5716	ND	69.9	31.4-113.4			09/08/2015	
2-Methylphenol (o-Cresol)	ND	9400	ug/kg dry	11430	ND		36.3-108.1			09/08/2015	V
2-Nitroaniline	3140	14000	ug/kg dry	5716	ND	54.9	49-109.6			09/08/2015	
2-Nitrophenol	6800	9400	ug/kg dry	11430	ND	59.5	29.6-108.7			09/08/2015	
3 & 4-Methylphenol	ND	19000	ug/kg dry	11430	ND		35.7-109.9			09/08/2015	V
3-Nitroaniline	1460	14000	ug/kg dry	5716	ND	25.5	10-113.7			09/08/2015	
4-Bromophenyl phenyl ether	4390	5700	ug/kg dry	5716	ND	76.9	47.2-120.7			09/08/2015	
4-Chloro-3-methyl-phenol	ND	5700	ug/kg dry	11430	ND		42.6-122.7			09/08/2015	V
4-Chlorodiphenylether	3940	2900	ug/kg dry	5716	ND	69.0	45.9-113.6			09/08/2015	
4-Nitroaniline	1940	14000	ug/kg dry	5716	ND	33.9	10-120.8			09/08/2015	
4-Nitrophenol	4250	49000	ug/kg dry	11430	ND	37.1	10-187.7			09/08/2015	
Acenaphthene	4420	2900	ug/kg dry	5716	ND	77.4	41.1-113.8			09/08/2015	
Acenaphthylene	4470	2900	ug/kg dry	5716	ND	78.3	46.8-117.3			09/08/2015	
Anthracene	7050	2900	ug/kg dry	5716	3630	59.9	33.6-131			09/08/2015	
Azobenzene	4070	5700	ug/kg dry	5716	ND	71.2	44.1-120.3			09/08/2015	
Benz[a]anthracene	17400	2900	ug/kg dry	5716	20000	-45.7	32.3-137.5			09/08/2015	A03
Benzo[a]pyrene	16800	5700	ug/kg dry	5716	17200	-6.97	33.4-140			09/08/2015	A03
Benzo[b]fluoranthene	22600	5700	ug/kg dry	5716	26100	-61.0	22.2-153.3			09/08/2015	A
Benzo[g,h,i]perylene	12200	5700	ug/kg dry	5716	9470	47.7	11.3-135			09/08/2015	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

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

## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## Matrix Spike (B5H2808-MS1)

Source: 1508223-04

Benzo[k]fluoranthene	10900	5700	ug/kg dry	5716	7460	60.3	34.8-138.7			09/08/2015	
Benzyl Alcohol	7030	71000	ug/kg dry	11430	ND	61.5	10-117.7			09/08/2015	
Bis(2-chloroethoxy)methane	4150	5700	ug/kg dry	5716	ND	72.5	35.6-102.7			09/08/2015	
Bis(2-chloroethyl)ether	3330	2900	ug/kg dry	5716	ND	58.2	30.5-96.2			09/08/2015	
Bis(2-chloroisopropyl)ether	3430	2900	ug/kg dry	5716	ND	60.0	21.5-108			09/08/2015	
Bis(2-ethylhexyl)phthalate	4050	7100	ug/kg dry	5716	ND	70.9	10-181.4			09/08/2015	
Butyl benzyl phthalate	4210	7100	ug/kg dry	5716	ND	73.6	43.2-137			09/08/2015	
Carbazole	4850	7100	ug/kg dry	5716	ND	84.8	40-128.2			09/08/2015	
Chrysene	18200	2900	ug/kg dry	5716	20400	-38.1	34.2-135.8			09/08/2015	A03
Dibenz[a,h]anthracene	6440	5700	ug/kg dry	5716	ND	113	15.1-151.4			09/08/2015	
Dibenzofuran	4500	7100	ug/kg dry	5716	ND	78.7	39.8-117.2			09/08/2015	
Diethylphthalate	4020	7100	ug/kg dry	5716	ND	70.3	45-120			09/08/2015	
Dimethyl phthalate	4030	7100	ug/kg dry	5716	ND	70.6	50.1-110			09/08/2015	
Di-n-butyl phthalate	4060	7100	ug/kg dry	5716	ND	71.1	49.9-123.5			09/08/2015	
Di-n-octyl phthalate	3690	7100	ug/kg dry	5716	ND	64.6	46.5-133.9			09/08/2015	
Fluoranthene	30300	2900	ug/kg dry	5716	37900	-132	15.2-153			09/08/2015	A03
Fluorene	5070	2900	ug/kg dry	5716	ND	88.7	40.2-118.3			09/08/2015	
Hexachlorobenzene	4470	5700	ug/kg dry	5716	ND	78.2	44.8-119.4			09/08/2015	
Hexachlorobutadiene	3660	2900	ug/kg dry	5716	ND	62.9	28.5-103.4			09/08/2015	
Hexachlorocyclopentadiene	7860	29000	ug/kg dry	5716	ND	138	10-150.4			09/08/2015	
Hexachloroethane	3110	2900	ug/kg dry	5716	ND	54.4	17.5-94.5			09/08/2015	
Indeno(1,2,3-c,d)pyrene	11600	5700	ug/kg dry	5716	9160	42.5	18.8-148.7			09/08/2015	
Isophorone	3440	2900	ug/kg dry	5716	ND	60.3	32.7-100.5			09/08/2015	
Naphthalene	4060	2900	ug/kg dry	5716	ND	71.0	26.4-107.8			09/08/2015	
Nitrobenzene	3530	5700	ug/kg dry	5716	ND	61.8	35.6-100.3			09/08/2015	
N-Nitrosodimethylamine	2900	7100	ug/kg dry	5716	ND	50.8	10-108.9			09/08/2015	
N-Nitrosodi-n-propylamine	3630	5700	ug/kg dry	5716	ND	63.5	31.1-108.4			09/08/2015	
N-Nitrosodiphenylamine	2940	5700	ug/kg dry	5716	ND	51.4	41.3-138.2			09/08/2015	
Pentachlorophenol	21800	49000	ug/kg dry	11430	ND	190	10-187.3			09/08/2015	V
Phenanthrene	18600	2900	ug/kg dry	5716	17900	12.5	23.1-144.2			09/08/2015	A03
Phenol	6150	9400	ug/kg dry	11430	ND	53.8	34-103.7			09/08/2015	
Pyrene	28000	2900	ug/kg dry	5716	34500	-114	24.1-148.9			09/08/2015	A03
Surrogate: 2,4,6-Tribromophenol	4750		ug/kg dry	11430		41.6	20.3-115			09/08/2015	
Surrogate: 2-Fluorobiphenyl	3680		ug/kg dry	5716		64.4	32.9-115			09/08/2015	
Surrogate: 2-Fluorophenol	4620		ug/kg dry	11430		40.4	23.7-115			09/08/2015	
Surrogate: Nitrobenzene-d5	3260		ug/kg dry	5716		57.0	31.8-115			09/08/2015	
Surrogate: Phenol-d6	5920		ug/kg dry	11430		51.8	29.3-115			09/08/2015	
Surrogate: p-Terphenyl-d14	4170		ug/kg dry	5716		72.9	38.5-115			09/08/2015	

## Matrix Spike Dup (B5H2808-MSD1)

Source: 1508223-04

1,2,4-Trichlorobenzene	3320	5700	ug/kg dry	5716	ND	58.1	33.5-99.6		38.3	09/08/2015	
2,4,5-Trichlorophenol	5840	9400	ug/kg dry	11430	ND	51.1	41.3-129.6		65.3	09/08/2015	
2,4,6-Trichlorophenol	ND	9400	ug/kg dry	11430	ND		37.8-122.8		65.8	09/08/2015	V
2,4-Dichlorophenol	5180	9400	ug/kg dry	11430	ND	45.3	40.1-115.1		38.8	09/08/2015	
2,4-Dimethylphenol	ND	9400	ug/kg dry	11430	ND		22.5-117.9		47.2	09/08/2015	V
2,4-Dinitrophenol	20900	49000	ug/kg dry	11430	ND	183	10-200.9		65	09/08/2015	
4-Dinitrotoluene	3120	7100	ug/kg dry	5716	ND	54.6	48.4-117.6		34.1	09/08/2015	
6-Dinitrotoluene	3320	7100	ug/kg dry	5716	ND	58.1	50.3-113.1		32.8	09/08/2015	





## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

Matrix Spike Dup (B5H2808-MSD1)

Source: 1508223-04

2-Chloronaphthalene	3500	5700	ug/kg dry	5716	ND	61.2	43.9-103.9		33.4	09/08/2015	
2-Chlorophenol	5740	9400	ug/kg dry	11430	ND	50.2	34.9-99.2		46	09/08/2015	
2-Methyl-4,6-dinitrophenol	3350	49000	ug/kg dry	11430	ND	29.3	12.3-124.3		60	09/08/2015	
2-Methylnaphthalene	3720	7100	ug/kg dry	5716	ND	65.0	31.4-113.4	7.25	35.6	09/08/2015	
2-Methylphenol (o-Cresol)	ND	9400	ug/kg dry	11430	ND		36.3-108.1		37.5	09/08/2015	V
2-Nitroaniline	2860	14000	ug/kg dry	5716	ND	50.0	49-109.6		34.4	09/08/2015	
2-Nitrophenol	6230	9400	ug/kg dry	11430	ND	54.5	29.6-108.7		60.3	09/08/2015	
3 & 4-Methylphenol	ND	19000	ug/kg dry	11430	ND		35.7-109.9		62.3	09/08/2015	V
3-Nitroaniline	ND	14000	ug/kg dry	5716	ND		10-113.7		67.6	09/08/2015	V
4-Bromophenyl phenyl ether	3920	5700	ug/kg dry	5716	ND	68.7	47.2-120.7		32.4	09/08/2015	
4-Chloro-3-methyl-phenol	ND	5700	ug/kg dry	11430	ND		42.6-122.7		44.7	09/08/2015	V
4-Chlorodiphenylether	3620	2900	ug/kg dry	5716	ND	63.4	45.9-113.6	8.42	33.1	09/08/2015	
4-Nitroaniline	1500	14000	ug/kg dry	5716	ND	26.2	10-120.8		67.8	09/08/2015	
4-Nitrophenol	3630	49000	ug/kg dry	11430	ND	31.7	10-187.7		56.4	09/08/2015	
Acenaphthene	4310	2900	ug/kg dry	5716	ND	75.4	41.1-113.8	2.60	32.4	09/08/2015	
Acenaphthylene	4150	2900	ug/kg dry	5716	ND	72.6	46.8-117.3	7.52	32.4	09/08/2015	
Anthracene	5900	2900	ug/kg dry	5716	3630	39.7	33.6-131	17.8	49.4	09/08/2015	
Azobenzene	3730	5700	ug/kg dry	5716	ND	65.3	44.1-120.3		34	09/08/2015	
Benz[a]anthracene	17200	2900	ug/kg dry	5716	20000	-49.0	32.3-137.5	1.10	47.3	09/08/2015	
Benzo[a]pyrene	16400	5700	ug/kg dry	5716	17200	-15.4	33.4-140	2.90	45	09/08/2015	A03
Benzo[b]fluoranthene	22600	5700	ug/kg dry	5716	26100	-60.4	22.2-153.3	0.163	45.7	09/08/2015	A03
Benzo[g,h,i]perylene	12300	5700	ug/kg dry	5716	9470	-49.3	11.3-135	0.725	45	09/08/2015	
Benzo[k]fluoranthene	11600	5700	ug/kg dry	5716	7460	72.3	34.8-138.7	6.08	41	09/08/2015	
Benzyl Alcohol	6620	71000	ug/kg dry	11430	ND	57.9	10-117.7		49	09/08/2015	
Bis(2-chloroethoxy)methane	3870	5700	ug/kg dry	5716	ND	67.7	35.6-102.7		37.1	09/08/2015	
Bis(2-chloroethyl)ether	3390	2900	ug/kg dry	5716	ND	59.2	30.5-96.2	1.73	39	09/08/2015	
Bis(2-chloroisopropyl)ether	3290	2900	ug/kg dry	5716	ND	57.5	21.5-108	4.29	39.7	09/08/2015	
Bis(2-ethylhexyl)phthalate	3900	7100	ug/kg dry	5716	ND	68.2	10-181.4		65.4	09/08/2015	
Butyl benzyl phthalate	ND	7100	ug/kg dry	5716	ND		43.2-137		37.9	09/08/2015	A03
Carbazole	4620	7100	ug/kg dry	5716	ND	80.8	40-128.2		32.7	09/08/2015	
Chrysene	17700	2900	ug/kg dry	5716	20400	-47.2	34.2-135.8	2.88	45.5	09/08/2015	A03
Dibenz[a,h]anthracene	6430	5700	ug/kg dry	5716	ND	113	15.1-151.4	0.213	64.9	09/08/2015	
Dibenzofuran	4100	7100	ug/kg dry	5716	ND	71.8	39.8-117.2		33.5	09/08/2015	
Dichthylphthalate	3680	7100	ug/kg dry	5716	ND	64.4	45-120		35.2	09/08/2015	
Dimethyl phthalate	3730	7100	ug/kg dry	5716	ND	65.3	50.1-110		31.6	09/08/2015	
Di-n-butyl phthalate	3740	7100	ug/kg dry	5716	ND	65.5	49.9-123.5		32.4	09/08/2015	
Di-n-octyl phthalate	3370	7100	ug/kg dry	5716	ND	59.0	46.5-133.9		62	09/08/2015	
Fluoranthene	28400	2900	ug/kg dry	5716	37900	-165	15.2-153	6.47	53.9	09/08/2015	A03
Fluorene	4630	2900	ug/kg dry	5716	ND	81.0	40.2-118.3	9.02	36.8	09/08/2015	
Hexachlorobenzene	3960	5700	ug/kg dry	5716	ND	69.3	44.8-119.4		36.1	09/08/2015	
Hexachlorobutadiene	3430	2900	ug/kg dry	5716	ND	60.0	28.5-103.4	4.74	40.4	09/08/2015	
Hexachlorocyclopentadiene	7690	29000	ug/kg dry	5716	ND	135	10-150.4		65	09/08/2015	
Hexachloroethane	3090	2900	ug/kg dry	5716	ND	54.0	17.5-94.5	0.649	46.6	09/08/2015	
Indeno(1,2,3-c,d)pyrene	12100	5700	ug/kg dry	5716	9160	51.4	18.8-148.7	4.29	46.1	09/08/2015	
Isophorone	3330	2900	ug/kg dry	5716	ND	58.3	32.7-100.5	3.33	38.5	09/08/2015	
Naphthalene	3980	2900	ug/kg dry	5716	ND	69.6	26.4-107.8	2.02	36.8	09/08/2015	
Nitrobenzene	3240	5700	ug/kg dry	5716	ND	56.6	35.6-100.3		39.4	09/08/2015	
N-Nitrosodimethylamine	2620	7100	ug/kg dry	5716	ND	45.8	10-108.9		54.7	09/08/2015	



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

## Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H2808 - Method: 3545 Soil SVOC

Prepared: 08/31/2015

## Matrix Spike Dup (B5H2808-MSD1)

Source: 1508223-04

N-Nitrosodi-n-propylamine	3480	5700	ug/kg dry	5716	ND	60.8	31.1-108.4		37.9	09/08/2015	
N-Nitrosodiphenylamine	2550	5700	ug/kg dry	5716	ND	44.6	41.3-138.2		35.8	09/08/2015	
Pentachlorophenol	21300	49000	ug/kg dry	11430	ND	186	10-187.3		77.9	09/08/2015	
Phenanthrene	17000	2900	ug/kg dry	5716	17900	-15.3	23.1-144.2	8.95	52.6	09/08/2015	A03
Phenol	5550	9400	ug/kg dry	11430	ND	48.6	34-103.7		60.7	09/08/2015	
Pyrene	29000	2900	ug/kg dry	5716	34500	-96.7	24.1-148.9	3.52	53.6	09/08/2015	A03
Surrogate: 2,4,6-Tribromophenol	4020		ug/kg dry	11430		35.1	20.3-115			09/08/2015	
Surrogate: 2-Fluorobiphenyl	3410		ug/kg dry	5716		59.7	32.9-115			09/08/2015	
Surrogate: 2-Fluorophenol	3930		ug/kg dry	11430		34.4	23.7-115			09/08/2015	
Surrogate: Nitrobenzene-d5	3200		ug/kg dry	5716		56.0	31.8-115			09/08/2015	
Surrogate: Phenol-d6	5370		ug/kg dry	11430		46.9	29.3-115			09/08/2015	
Surrogate: p-Terphenyl-d14	3980		ug/kg dry	5716		69.6	38.5-115			09/08/2015	



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P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-9800  
FAX: (517) 335-9500

**Organics-Pesticides - Quality Control**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H3117 - Method: 3545 Soil Pest/PCB**

**Prepared: 09/01/2015**

**Blank (B5H3117-BLK1)**

2,4'-DDT	ND	20	ug/kg wet							09/09/2015	
4,4'-DDD	ND	20	ug/kg wet							09/09/2015	
4,4'-DDE	ND	20	ug/kg wet							09/09/2015	
4,4'-DDT	ND	20	ug/kg wet							09/09/2015	
a-BHC	ND	10	ug/kg wet							09/09/2015	
a-Chlordane	ND	20	ug/kg wet							09/09/2015	
Aldrin	ND	20	ug/kg wet							09/09/2015	
b-BHC	ND	20	ug/kg wet							09/09/2015	
d-BHC	ND	20	ug/kg wet							09/09/2015	
Diieldrin	ND	20	ug/kg wet							09/09/2015	
Endosulfan I	ND	20	ug/kg wet							09/09/2015	
Endosulfan II	ND	20	ug/kg wet							09/09/2015	
Endosulfan sulfate	ND	20	ug/kg wet							09/09/2015	
Endrin	ND	20	ug/kg wet							09/09/2015	
Endrin aldehyde	ND	20	ug/kg wet							09/09/2015	
Endrin ketone	ND	20	ug/kg wet							09/09/2015	
g-BHC (Lindane)	ND	20	ug/kg wet							09/09/2015	
g-Chlordane	ND	20	ug/kg wet							09/09/2015	
Heptachlor	ND	20	ug/kg wet							09/09/2015	
Heptachlor epoxide	ND	20	ug/kg wet							09/09/2015	
Hexabromobenzene	ND	100	ug/kg wet							09/09/2015	
Methoxychlor	ND	50	ug/kg wet							09/09/2015	
Mirex	ND	50	ug/kg wet							09/09/2015	
PBB (BP-6)	ND	250	ug/kg wet							09/09/2015	
Toxaphene	ND	170	ug/kg wet							09/09/2015	
Surrogate: Decachlorobiphenyl	85.7		ug/kg wet	100.0		85.7	30-150			09/09/2015	
Surrogate: Tetrachloro-m-xylene	78.4		ug/kg wet	100.0		78.4	30-150			09/09/2015	

**LCS (B5H3117-BS1)**

2,4'-DDT	86.2	20	ug/kg wet	100.0		86.2	50-120			09/09/2015	
4,4'-DDD	86.1	20	ug/kg wet	100.0		86.1	50-120			09/09/2015	
4,4'-DDE	80.2	20	ug/kg wet	100.0		80.2	50-150			09/09/2015	
4,4'-DDT	88.1	20	ug/kg wet	100.0		88.1	50-120			09/09/2015	
a-BHC	81.6	10	ug/kg wet	100.0		81.6	50-120			09/09/2015	
a-Chlordane	82.1	20	ug/kg wet	100.0		82.1	30-130			09/09/2015	
Aldrin	80.5	20	ug/kg wet	100.0		80.5	30-120			09/09/2015	
b-BHC	84.1	20	ug/kg wet	100.0		84.1	50-120			09/09/2015	
d-BHC	80.7	20	ug/kg wet	100.0		80.7	50-120			09/09/2015	
Diieldrin	83.1	20	ug/kg wet	100.0		83.1	30-130			09/09/2015	
Endosulfan I	69.3	20	ug/kg wet	100.0		69.3	50-120			09/09/2015	
Endosulfan II	76.4	20	ug/kg wet	100.0		76.4	50-120			09/09/2015	
Endosulfan sulfate	87.8	20	ug/kg wet	100.0		87.8	50-120			09/09/2015	
Endrin	87.4	20	ug/kg wet	100.0		87.4	50-120			09/09/2015	
Endrin aldehyde	74.2	20	ug/kg wet	100.0		74.2	30-120			09/09/2015	
Endrin ketone	90.7	20	ug/kg wet	100.0		90.7	50-120			09/09/2015	
g-BHC (Lindane)	82.0	20	ug/kg wet	100.0		82.0	50-120			09/09/2015	
g-Chlordane	83.1	20	ug/kg wet	100.0		83.1	50-120			09/09/2015	
Heptachlor	86.6	20	ug/kg wet	100.0		86.6	50-120			09/09/2015	



## Organics-Pesticides - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5H3117 - Method: 3545 Soil Pest/PCB

Prepared: 09/01/2015

## LCS (B5H3117-BS1)

Heptachlor epoxide	84.4	20	ug/kg wet	100.0		84.4	30-130			09/09/2015	
Hexabromobenzene	83.1	100	ug/kg wet	100.0		83.1	50-120			09/09/2015	T
Methoxychlor	85.7	50	ug/kg wet	100.0		85.7	50-120			09/09/2015	
Mirex	82.2	50	ug/kg wet	100.0		82.2	50-120			09/09/2015	
PBB (BP-6)	76.9	250	ug/kg wet	100.0		76.9	50-120			09/09/2015	T
Surrogate: Decachlorobiphenyl	86.7		ug/kg wet	100.0		86.7	30-150			09/09/2015	
Surrogate: Tetrachloro-m-xylene	77.0		ug/kg wet	100.0		77.0	30-150			09/09/2015	

## LCS Dup (B5H3117-BSD1)

2,4'-DDT	83.6	20	ug/kg wet	100.0		83.6	50-120	3.07	30	09/09/2015	
4,4'-DDD	83.4	20	ug/kg wet	100.0		83.4	50-120	3.13	30	09/09/2015	
4,4'-DDE	78.6	20	ug/kg wet	100.0		78.6	50-150	1.98	30	09/09/2015	
4,4'-DDT	85.7	20	ug/kg wet	100.0		85.7	50-120	2.72	30	09/09/2015	
a-BHC	78.8	10	ug/kg wet	100.0		78.8	50-120	3.42	30	09/09/2015	
a-Chlordane	79.8	20	ug/kg wet	100.0		79.8	30-130	2.80	30	09/09/2015	
Aldrin	78.1	20	ug/kg wet	100.0		78.1	30-120	3.05	30	09/09/2015	
b-BHC	81.6	20	ug/kg wet	100.0		81.6	50-120	3.00	30	09/09/2015	
g-BHC	79.3	20	ug/kg wet	100.0		79.3	50-120	1.78	30	09/09/2015	
dieldrin	80.3	20	ug/kg wet	100.0		80.3	30-130	3.35	30	09/09/2015	
Endosulfan I	66.2	20	ug/kg wet	100.0		66.2	50-120	4.61	30	09/09/2015	
Endosulfan II	72.7	20	ug/kg wet	100.0		72.7	50-120	4.93	30	09/09/2015	
Endosulfan sulfate	85.7	20	ug/kg wet	100.0		85.7	50-120	2.41	30	09/09/2015	
Endrin	84.7	20	ug/kg wet	100.0		84.7	50-120	3.16	30	09/09/2015	
Endrin aldehyde	72.1	20	ug/kg wet	100.0		72.1	30-120	2.90	30	09/09/2015	
Endrin ketone	87.9	20	ug/kg wet	100.0		87.9	50-120	3.20	30	09/09/2015	
g-BHC (Lindane)	79.7	20	ug/kg wet	100.0		79.7	50-120	2.83	30	09/09/2015	
g-Chlordane	80.8	20	ug/kg wet	100.0		80.8	50-120	2.80	30	09/09/2015	
Heptachlor	83.8	20	ug/kg wet	100.0		83.8	50-120	3.40	30	09/09/2015	
Heptachlor epoxide	81.9	20	ug/kg wet	100.0		81.9	30-130	2.98	30	09/09/2015	
Hexabromobenzene	81.3	100	ug/kg wet	100.0		81.3	50-120	2.15	30	09/09/2015	T
Methoxychlor	83.2	50	ug/kg wet	100.0		83.2	50-120	2.95	30	09/09/2015	
Mirex	80.0	50	ug/kg wet	100.0		80.0	50-120	2.75	30	09/09/2015	
PBB (BP-6)	75.3	250	ug/kg wet	100.0		75.3	50-120	2.03	30	09/09/2015	T
Surrogate: Decachlorobiphenyl	85.5		ug/kg wet	100.0		85.5	30-150			09/09/2015	
Surrogate: Tetrachloro-m-xylene	75.5		ug/kg wet	100.0		75.5	30-150			09/09/2015	

## Matrix Spike (B5H3117-MS1)

Source: 1508223-04

2,4'-DDT	ND	1100	ug/kg dry	285.8	1210	-424	50-120			09/15/2015	V
4,4'-DDD	510	1100	ug/kg dry	285.8	454	19.9	50-120			09/15/2015	A03, T
4,4'-DDE	ND	1100	ug/kg dry	285.8	3520	-1230	50-150			09/15/2015	V
4,4'-DDT	ND	1100	ug/kg dry	285.8	5600	-1960	50-120			09/15/2015	V
a-BHC	226	570	ug/kg dry	285.8	ND	79.2	50-120			09/15/2015	T
a-Chlordane	291	1100	ug/kg dry	285.8	ND	102	30-130			09/15/2015	T
Aldrin	452	1100	ug/kg dry	285.8	ND	158	30-120			09/15/2015	A04, T
b-BHC	207	1100	ug/kg dry	285.8	ND	72.3	50-120			09/15/2015	T
d-BHC	271	1100	ug/kg dry	285.8	ND	94.9	50-120			09/15/2015	T
dieldrin	204	1100	ug/kg dry	285.8	ND	71.5	30-130			09/15/2015	T
Endosulfan I	201	1100	ug/kg dry	285.8	ND	70.2	50-120			09/15/2015	T





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

## Organics-Pesticides - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B5H3117 - Method: 3545 Soil Pest/PCB

Prepared: 09/01/2015

## Matrix Spike (B5H3117-MS1)

Source: 1508223-04

Endosulfan II	325	1100	ug/kg dry	285.8	ND	114	50-120			09/15/2015	T
Endosulfan sulfate	277	1100	ug/kg dry	285.8	ND	96.8	50-120			09/15/2015	T
Endrin	235	1100	ug/kg dry	285.8	ND	82.1	50-120			09/15/2015	T
Endrin aldehyde	221	1100	ug/kg dry	285.8	ND	77.3	30-120			09/15/2015	T
Endrin ketone	401	1100	ug/kg dry	285.8	ND	140	50-120			09/15/2015	A04, T
g-BHC (Lindane)	260	1100	ug/kg dry	285.8	ND	90.9	50-120			09/15/2015	T
g-Chlordane	228	1100	ug/kg dry	285.8	ND	79.8	50-120			09/15/2015	T
Heptachlor	237	1100	ug/kg dry	285.8	ND	82.8	50-120			09/15/2015	T
Heptachlor epoxide	235	1100	ug/kg dry	285.8	ND	82.3	30-130			09/15/2015	T
Hexabromobenzene	149	5700	ug/kg dry	285.8	ND	52.0	50-120			09/15/2015	T
Methoxychlor	519	2900	ug/kg dry	285.8	ND	182	50-120			09/15/2015	A04, A07, T
Mirex	245	2900	ug/kg dry	285.8	ND	85.6	50-120			09/15/2015	T
PBB (BP-6)	283	14000	ug/kg dry	285.8	ND	99.1	50-120			09/15/2015	T
Surrogate: Decachlorobiphenyl	0.00		ug/kg dry	285.8			30-150			09/15/2015	V
Surrogate: Tetrachloro-m-xylene	185		ug/kg dry	285.8		64.8	30-150			09/15/2015	

## Matrix Spike Dup (B5H3117-MSD1)

Source: 1508223-04

2,4'-DDT	ND	1100	ug/kg dry	285.8	1210	-424	50-120		30	09/15/2015	
4,4'-DDD	659	1100	ug/kg dry	285.8	454	71.9	50-120	25.4	30	09/15/2015	T
4,4'-DDE	ND	1100	ug/kg dry	285.8	3520	-1230	50-150		30	09/15/2015	V
4,4'-DDT	ND	1100	ug/kg dry	285.8	5600	-1960	50-120		30	09/15/2015	V
a-BHC	279	570	ug/kg dry	285.8	ND	97.7	50-120	20.9	30	09/15/2015	T
a-Chlordane	336	1100	ug/kg dry	285.8	ND	118	30-130	14.4	30	09/15/2015	T
Aldrin	396	1100	ug/kg dry	285.8	ND	139	30-120	13.1	30	09/15/2015	A04, T
b-BHC	254	1100	ug/kg dry	285.8	ND	88.9	50-120	20.7	30	09/15/2015	T
d-BHC	302	1100	ug/kg dry	285.8	ND	106	50-120	10.6	30	09/15/2015	T
Diendrin	249	1100	ug/kg dry	285.8	ND	87.1	30-130	19.6	30	09/15/2015	T
Endosulfan I	265	1100	ug/kg dry	285.8	ND	92.6	50-120	27.4	30	09/15/2015	T
Endosulfan II	326	1100	ug/kg dry	285.8	ND	114	50-120	0.297	30	09/15/2015	T
Endosulfan sulfate	294	1100	ug/kg dry	285.8	ND	103	50-120	6.24	30	09/15/2015	T
Endrin	274	1100	ug/kg dry	285.8	ND	96.0	50-120	15.6	30	09/15/2015	T
Endrin aldehyde	250	1100	ug/kg dry	285.8	ND	87.5	30-120	12.4	30	09/15/2015	T
Endrin ketone	341	1100	ug/kg dry	285.8	ND	119	50-120	16.2	30	09/15/2015	T
g-BHC (Lindane)	274	1100	ug/kg dry	285.8	ND	95.8	50-120	5.20	30	09/15/2015	T
g-Chlordane	289	1100	ug/kg dry	285.8	ND	101	50-120	23.4	30	09/15/2015	T
Heptachlor	265	1100	ug/kg dry	285.8	ND	92.7	50-120	11.3	30	09/15/2015	T
Heptachlor epoxide	296	1100	ug/kg dry	285.8	ND	104	30-130	22.8	30	09/15/2015	T
Hexabromobenzene	197	5700	ug/kg dry	285.8	ND	69.1	50-120	28.1	30	09/15/2015	T
Methoxychlor	372	2900	ug/kg dry	285.8	ND	130	50-120	33.2	30	09/15/2015	A04, A07, T
Mirex	320	2900	ug/kg dry	285.8	ND	112	50-120	26.6	30	09/15/2015	T
PBB (BP-6)	310	14000	ug/kg dry	285.8	ND	108	50-120	8.93	30	09/15/2015	T
Surrogate: Decachlorobiphenyl	0.00		ug/kg dry	285.8			30-150			09/15/2015	V
Surrogate: Tetrachloro-m-xylene	235		ug/kg dry	285.8		82.1	30-150			09/15/2015	





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ENVIRONMENTAL LABORATORY

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

## Organics-PCBs as Aroclors - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5H3117 - Method: 3545 Soil Pest/PCB

Prepared: 09/01/2015

## Blank (B5H3117-BLK1)

Aroclor 1016	ND	100	ug/kg wet							09/09/2015	
Aroclor 1221	ND	100	ug/kg wet							09/09/2015	
Aroclor 1232	ND	100	ug/kg wet							09/09/2015	
Aroclor 1242	ND	100	ug/kg wet							09/09/2015	
Aroclor 1248	ND	100	ug/kg wet							09/09/2015	
Aroclor 1254	ND	100	ug/kg wet							09/09/2015	
Aroclor 1260	ND	100	ug/kg wet							09/09/2015	
Aroclor 1262	ND	100	ug/kg wet							09/09/2015	
Aroclor 1268	ND	100	ug/kg wet							09/09/2015	
Surrogate: Decachlorobiphenyl	85.7		ug/kg wet	100.0		85.7	30-150			09/09/2015	
Surrogate: Tetrachloro-m-xylene	78.4		ug/kg wet	100.0		78.4	30-150			09/09/2015	

## Matrix Spike (B5H3117-MS1)

Source: 1508223-04

Aroclor 1016	ND	5700	ug/kg dry		ND		29-135			09/15/2015	
Aroclor 1260	ND	5700	ug/kg dry		ND		29-135			09/15/2015	
Surrogate: Decachlorobiphenyl	0.00		ug/kg dry	285.8			30-150			09/15/2015	V
Surrogate: Tetrachloro-m-xylene	185		ug/kg dry	285.8		64.8	30-150			09/15/2015	

## Matrix Spike Dup (B5H3117-MSD1)

Source: 1508223-04

Aroclor 1016	ND	5700	ug/kg dry		ND		29-135	15		09/15/2015	
Aroclor 1260	ND	5700	ug/kg dry		ND		29-135	20		09/15/2015	
Surrogate: Decachlorobiphenyl	0.00		ug/kg dry	285.8			30-150			09/15/2015	V
Surrogate: Tetrachloro-m-xylene	235		ug/kg dry	285.8		82.1	30-150			09/15/2015	



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 ENVIRONMENTAL LABORATORY

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

Inorganics-General Chemistry - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
<b>Batch B5H2709 - Method: Solids</b>				<b>Prepared: 08/27/2015</b>							
<b>Duplicate (B5H2709-DUP1)</b>		<b>Source: 1508224-04</b>									
% Total Solids	91.2	0.1	%		91.7			0.494	20	08/27/2015	
<b>Batch B5I0207 - Method: 9013</b>				<b>Prepared: 09/02/2015</b>							
<b>Blank (B5I0207-BLK1)</b>											
Total Cyanide	ND	0.10	mg/kg wet							09/03/2015	
<b>Blank (B5I0207-BLK2)</b>											
Total Cyanide	ND	0.10	mg/kg wet							09/03/2015	
<b>LCS (B5I0207-BS1)</b>											
Total Cyanide	0.838	0.10	mg/kg wet	1.000		83.8	80-120			09/03/2015	
<b>LCS (B5I0207-BS2)</b>											
Total Cyanide	0.876	0.10	mg/kg wet	1.000		87.6	80-120			09/03/2015	
<b>Matrix Spike (B5I0207-MS1)</b>		<b>Source: 1508224-06</b>									
Total Cyanide	1.28	0.11	mg/kg dry	1.148	0.403	76.8	70-130			09/03/2015	
<b>Matrix Spike (B5I0207-MS2)</b>		<b>Source: 1508225-05</b>									
Total Cyanide	1.56	0.18	mg/kg dry	1.839	0.155	76.1	70-130			09/03/2015	
<b>Matrix Spike Dup (B5I0207-MSD1)</b>		<b>Source: 1508224-06</b>									
Total Cyanide	1.22	0.11	mg/kg dry	1.148	0.403	71.6	70-130	4.76	20	09/03/2015	
<b>Matrix Spike Dup (B5I0207-MSD2)</b>		<b>Source: 1508225-05</b>									
Total Cyanide	1.49	0.18	mg/kg dry	1.839	0.155	72.5	70-130	4.40	20	09/03/2015	
<b>Reference (B5I0207-SRM1)</b>											
Total Cyanide	89.6	2.5	mg/kg wet	109.0		82.2	21-110			09/03/2015	



## Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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**Batch B5H3103 - Method: 3050-Sb**

Prepared: 08/31/2015

**Blank (B5H3103-BLK1)**

Antimony	ND	0.3	mg/kg dry							09/08/2015	
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**LCS (B5H3103-BS1)**

Antimony	49.3	0.6	mg/kg dry	50.00		98.5	85-115			09/08/2015	
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**Matrix Spike (B5H3103-MS1)**

Source: 1508223-14

Antimony	37.9	0.6	mg/kg dry	50.00	1.0	73.7	80-120			09/08/2015	
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**Matrix Spike Dup (B5H3103-MSD1)**

Source: 1508223-14

Antimony	41.6	0.6	mg/kg dry	50.00	1.0	81.1	80-120	9.28	20	09/08/2015	
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**Batch B5I0101 - Method: 3050**

Prepared: 09/01/2015

**Blank (B5I0101-BLK1)**

Arsenic	ND	0.5	mg/kg dry							09/04/2015	
Barium	ND	1.0	mg/kg dry							09/04/2015	
Beryllium	ND	0.2	mg/kg dry							09/04/2015	
Cadmium	ND	0.2	mg/kg dry							09/04/2015	
Chromium	ND	2.0	mg/kg dry							09/04/2015	
Cobalt	ND	0.5	mg/kg dry							09/04/2015	
Copper	ND	1.0	mg/kg dry							09/04/2015	
Iron	2.2	0.5	mg/kg dry							09/11/2015	
Lead	ND	1.0	mg/kg dry							09/04/2015	
Manganese	ND	1.0	mg/kg dry							09/04/2015	
Molybdenum	ND	1.0	mg/kg dry							09/04/2015	
Nickel	ND	1.0	mg/kg dry							09/04/2015	
Selenium	ND	0.2	mg/kg dry							09/04/2015	
Silver	ND	0.1	mg/kg dry							09/04/2015	
Thallium	ND	0.5	mg/kg dry							09/04/2015	
Vanadium	ND	1.0	mg/kg dry							09/04/2015	
Zinc	ND	1.0	mg/kg dry							09/04/2015	

**LCS (B5I0101-BS1)**

Arsenic	114	5.0	mg/kg dry	100.0		114	85-115			09/04/2015	
Barium	103	10	mg/kg dry	100.0		103	85-115			09/04/2015	
Beryllium	102	2.0	mg/kg dry	100.0		102	85-115			09/04/2015	
Cadmium	10.6	2.0	mg/kg dry	10.00		106	85-115			09/04/2015	
Chromium	96.6	20	mg/kg dry	100.0		96.6	85-115			09/04/2015	
Cobalt	105	5.0	mg/kg dry	100.0		105	85-115			09/04/2015	
Copper	108	10	mg/kg dry	100.0		108	85-115			09/04/2015	
Iron	590	0.5	mg/kg dry	500.0		118	85-115			09/11/2015	
Lead	108	10	mg/kg dry	100.0		108	85-115			09/04/2015	
Manganese	104	10	mg/kg dry	100.0		104	85-115			09/04/2015	
Molybdenum	126	10	mg/kg dry	100.0		126	85-115			09/04/2015	
Nickel	103	10	mg/kg dry	100.0		103	85-115			09/04/2015	
Selenium	109	2.0	mg/kg dry	100.0		109	85-115			09/04/2015	
Silver	10.4	1.0	mg/kg dry	10.00		104	85-115			09/04/2015	
Thallium	97.7	5.0	mg/kg dry	100.0		97.7	85-115			09/04/2015	
Vanadium	99.2	10	mg/kg dry	100.0		99.2	85-115			09/04/2015	



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## Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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## Batch B5I0101 - Method: 3050

Prepared: 09/01/2015

## LCS (B5I0101-BS1)

Zinc	109	10	mg/kg dry	100.0		109	85-115			09/04/2015	
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## Matrix Spike (B5I0101-MS1)

Source: 1508223-14

Arsenic	126	5.0	mg/kg dry	100.0	9.4	116	80-120			09/04/2015	
Barium	227	10	mg/kg dry	100.0	114	113	80-120			09/04/2015	
Beryllium	105	2.0	mg/kg dry	100.0	ND	105	80-120			09/04/2015	
Cadmium	12.2	2.0	mg/kg dry	10.00	1.1	110	80-120			09/04/2015	
Chromium	127	20	mg/kg dry	100.0	27.2	100	80-120			09/04/2015	
Cobalt	109	5.0	mg/kg dry	100.0	ND	109	80-120			09/04/2015	
Copper	168	10	mg/kg dry	100.0	61.8	106	80-120			09/04/2015	
Iron	15600	5.0	mg/kg dry	500.0	13600	394	80-120			09/11/2015	X3
Lead	382	10	mg/kg dry	100.0	346	36.3	80-120			09/04/2015	X3
Manganese	409	10	mg/kg dry	100.0	228	181	80-120			09/04/2015	A04
Molybdenum	129	10	mg/kg dry	100.0	ND	129	80-120			09/04/2015	A04
Nickel	128	10	mg/kg dry	100.0	21.9	106	80-120			09/04/2015	
Selenium	110	2.0	mg/kg dry	100.0	ND	110	80-120			09/04/2015	
Silver	11.3	1.0	mg/kg dry	10.00	0.6	107	80-120			09/04/2015	
Thallium	96.7	5.0	mg/kg dry	100.0	ND	96.7	80-120			09/04/2015	
Vanadium	123	10	mg/kg dry	100.0	19.5	104	80-120			09/04/2015	
Zinc	2990	10	mg/kg dry	100.0	5370	-2380	80-120			09/04/2015	

## Matrix Spike Dup (B5I0101-MSD1)

Source: 1508223-14

Arsenic	121	5.0	mg/kg dry	100.0	9.4	112	80-120	3.58	20	09/04/2015	
Barium	230	10	mg/kg dry	100.0	114	115	80-120	1.26	20	09/04/2015	
Beryllium	104	2.0	mg/kg dry	100.0	ND	104	80-120	0.971	20	09/04/2015	
Cadmium	11.9	2.0	mg/kg dry	10.00	1.1	108	80-120	2.23	20	09/04/2015	
Chromium	126	20	mg/kg dry	100.0	27.2	99.0	80-120	0.995	20	09/04/2015	
Cobalt	106	5.0	mg/kg dry	100.0	ND	106	80-120	2.12	20	09/04/2015	
Copper	159	10	mg/kg dry	100.0	61.8	97.2	80-120	5.21	20	09/04/2015	
Iron	14100	5.0	mg/kg dry	500.0	13600	98.0	80-120	9.99	20	09/11/2015	
Lead	360	10	mg/kg dry	100.0	346	14.2	80-120	5.95	20	09/04/2015	X3
Manganese	378	10	mg/kg dry	100.0	228	150	80-120	7.89	20	09/04/2015	A04
Molybdenum	124	10	mg/kg dry	100.0	ND	124	80-120	3.72	20	09/04/2015	A04
Nickel	125	10	mg/kg dry	100.0	21.9	103	80-120	2.61	20	09/04/2015	
Selenium	108	2.0	mg/kg dry	100.0	ND	108	80-120	2.21	20	09/04/2015	
Silver	11.0	1.0	mg/kg dry	10.00	0.6	104	80-120	2.73	20	09/04/2015	
Thallium	96.3	5.0	mg/kg dry	100.0	ND	96.3	80-120	0.407	20	09/04/2015	
Vanadium	121	10	mg/kg dry	100.0	19.5	102	80-120	1.90	20	09/04/2015	
Zinc	2560	10	mg/kg dry	100.0	5370	-2800	80-120	15.3	20	09/04/2015	X3

## Batch B5I0204 - Method: 7471

Prepared: 09/02/2015

## Blank (B5I0204-BLK1)

Mercury	ND	0.05	mg/kg wet							09/03/2015	
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## LCS (B5I0204-BS1)

Mercury	0.4	0.05	mg/kg wet	0.4000		103	85-115			09/03/2015	
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## Matrix Spike (B5I0204-MS1)

Source: 1508223-08



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Lansing, MI 48909  
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FAX: (517) 335-9600

## Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
<b>Batch B5I0204 - Method: 7471</b>				<b>Prepared: 09/02/2015</b>							
<b>Matrix Spike (B5I0204-MS1)</b>		<b>Source: 1508223-08</b>									
Mercury	0.8	0.06	mg/kg dry	0.4829	0.2	105	80-120			09/03/2015	
<b>Matrix Spike Dup (B5I0204-MSD1)</b>		<b>Source: 1508223-08</b>									
Mercury	0.8	0.06	mg/kg dry	0.4829	0.2	109	80-120	2.07	20	09/03/2015	
<b>Batch B5I0902 - Method: 7471</b>				<b>Prepared: 09/09/2015</b>							
<b>Blank (B5I0902-BLK1)</b>											
Mercury	ND	0.05	mg/kg wet							09/10/2015	
<b>LCS (B5I0902-BS1)</b>											
Mercury	0.4	0.05	mg/kg wet	0.4000		100	85-115			09/10/2015	
<b>Matrix Spike (B5I0902-MS1)</b>		<b>Source: 1508224-04</b>									
Mercury	0.5	0.05	mg/kg dry	0.4364	0.02	104	80-120			09/10/2015	
<b>Matrix Spike Dup (B5I0902-MSD1)</b>		<b>Source: 1508224-04</b>									
Mercury	0.5	0.05	mg/kg dry	0.4364	0.02	105	80-120	0.486	20	09/10/2015	





# Analysis Request Sheet

Lab Work Order Number <b>1508223</b>	Project Name <b>Tree Farm</b>	Matrix <b>SOIL/SEDIMENT</b>
Site Code/Project Number <b>MIB00000196</b>	AY <b>15</b>	CC Email 1
Dept-Division-District <b>MDEQ-RRD-Superfund</b>	Index <b>44092</b>	CC Email 2
State Project Manager <b>Teresa Ducsay</b>	PCA	CC Email 3
State Project Manager Email <b>ducsayt@Michigan.gov</b>	Project <b>457052</b>	Overflow Lab Choice 1 <b>Trimatrix</b>
State Project Manager Phone <b>517-284-5088</b>	Phase <b>19</b>	Overflow Lab Choice 2
		Project TAT Days
		Project Due Date
		Accept Analysis hold time codes
		Sample Collector <b>Teresa Ducsay</b>
		Sample Collector Phone <b>517-284-5088</b>
		Contract Firm
		Contract Firm Primary Contact
		Primary Contact Phone

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01 SS-2015-01	08/25/15	1705	2	
2	02 SS-2015-02		1835	2	
3	03 SS-2015-02-DUP		1835	2	
4	04 SS-2015-03		1855	2	
5	05 SS-2015-03-MS		1855	2	
6	06 SS-2015-03-MSD		1855	2	
7	07 SS-2015-04		1005	2	
8	08 SS-2015-05		1110	2	
9	09 SS-2015-06		1135	2	
10	10 SS-2015-07		1745	2	

ORGANIC CHEMISTRY	METALS CHEMISTRY PACKAGES	MS - TOTAL METALS	GENERAL CHEMISTRY
<b>VQA - Volatile Organic Acidic</b> Volatiles - Full List <u>1 2 3 4 5 6 7 8 9 10</u> BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10  <b>OS - Pesticides, PCBs</b> Pesticides & PCBs <u>1 2 3 4 5 6 7 8 9 10</u> Pesticides only 1 2 3 4 5 6 7 8 9 10 PCBs only 1 2 3 4 5 6 7 8 9 10 Toxaphene 1 2 3 4 5 6 7 8 9 10  <b>BNA - Base Neutral Acids</b> BNAs <u>1 2 3 4 5 6 7 8 9 10</u> PNAs only 1 2 3 4 5 6 7 8 9 10 BNs only 1 2 3 4 5 6 7 8 9 10  <b>Organic Specialty Requests</b> Library search - Volatiles 1 2 3 4 5 6 7 8 9 10 Library search - SemiVols 1 2 3 4 5 6 7 8 9 10 Finger Print 1 2 3 4 5 6 7 8 9 10 DRO / ORO 1 2 3 4 5 6 7 8 9 10	<b>OpMemo2 - Total</b> <u>1 2 3 4 5 6 7 8 9 10</u> (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,V,Zn) <b>Michigan10 - Total</b> 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	<b>Silver - Ag</b> 1 2 3 4 5 6 7 8 9 10 <b>Aluminum - Al</b> 1 2 3 4 5 6 7 8 9 10 <b>Arsenic - As</b> 1 2 3 4 5 6 7 8 9 10 <b>Barium - Ba</b> 1 2 3 4 5 6 7 8 9 10 <b>Beryllium - Be</b> 1 2 3 4 5 6 7 8 9 10 <b>Cadmium - Cd</b> 1 2 3 4 5 6 7 8 9 10 <b>Cobalt - Co</b> 1 2 3 4 5 6 7 8 9 10 <b>Chromium - Cr</b> 1 2 3 4 5 6 7 8 9 10 <b>Copper - Cu</b> 1 2 3 4 5 6 7 8 9 10 <b>Iron - Fe</b> 1 2 3 4 5 6 7 8 9 10 <b>Mercury - Hg</b> 1 2 3 4 5 6 7 8 9 10 <b>Lithium - Li</b> 1 2 3 4 5 6 7 8 9 10 <b>Manganese - Mn</b> 1 2 3 4 5 6 7 8 9 10 <b>Molybdenum - Mo</b> 1 2 3 4 5 6 7 8 9 10 <b>Nickel - Ni</b> 1 2 3 4 5 6 7 8 9 10 <b>Lead - Pb</b> 1 2 3 4 5 6 7 8 9 10 <b>Antimony - Sb</b> 1 2 3 4 5 6 7 8 9 10 <b>Selenium - Se</b> 1 2 3 4 5 6 7 8 9 10 <b>Strontium - Sr</b> 1 2 3 4 5 6 7 8 9 10 <b>Titanium - Ti</b> 1 2 3 4 5 6 7 8 9 10 <b>Thallium - Tl</b> 1 2 3 4 5 6 7 8 9 10 <b>Uranium - U</b> 1 2 3 4 5 6 7 8 9 10 <b>Vanadium - V</b> 1 2 3 4 5 6 7 8 9 10 <b>Zinc - Zn</b> 1 2 3 4 5 6 7 8 9 10 <b>Calcium - Ca</b> 1 2 3 4 5 6 7 8 9 10 <b>Potassium - K</b> 1 2 3 4 5 6 7 8 9 10 <b>Magnesium - Mg</b> 1 2 3 4 5 6 7 8 9 10 <b>Sodium - Na</b> 1 2 3 4 5 6 7 8 9 10	<b>GS - General Chemistry</b> <b>Total Cyanide - CN</b> <u>1 2 3 4 5 6 7 8 9 10</u> <b>Available Cyanide - CN</b> 1 2 3 4 5 6 7 8 9 10 <b>Chem Oxyg Dem - COD</b> 1 2 3 4 5 6 7 8 9 10 <b>Total Org Carbon - TOC</b> 1 2 3 4 5 6 7 8 9 10 <b>Kjeldahl Nitrogen - KN</b> 1 2 3 4 5 6 7 8 9 10 <b>Total Phosphorus - TP</b> 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. <b>Teresa Ducsay, MDEQ</b>	<b>Melissa Smith Rm 100</b>	
	Signature: <i>Teresa Ducsay</i>		
	Print Name & Org. <b>Rm 100</b>	<b>Melissa Smith</b>	
Signature: <i>Melissa Smith</i>		<b>8/25/15 8:00</b>	
Print Name & Org.			
Signature:			



# Analysis Request Sheet

Lab Work Order Number <b>1508223</b>		Project Name <b>Tree Farm</b>		Matrix <b>SOIL/SEDIMENT</b>	
Site Code/Project Number <b>MIB000000196</b>	AY <b>15</b>	CC Email 1	Project TAT Days	Sample Collector <b>Teresa Ducsay</b>	
Dept-Division-District <b>MDEQ-RRD-Superfund</b>	Index <b>44092</b>	CC Email 2	Project Due Date	Sample Collector Phone <b>517-284-5088</b>	
State Project Manager <b>Teresa Ducsay</b>	PCA	CC Email 3	Accept Analysis hold time codes	Contract Firm	
State Project Manager Email <b>ducsayt@Michigan.gov</b>	Project <b>457052</b>	Overflow Lab Choice 1 <b>Trimatrix</b>		Contract Firm Primary Contact	
State Project Manager Phone <b>517-284-5088</b>	Phase <b>19</b>	Overflow Lab Choice 2		Primary Contact Phone	

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11 SS-2015-08	08/25/15	0915	2	
2	12 SS-2015-09	↓	1205	2	
3	13 SS-2015-10		1510	2	
4	14 SS-2015-11	08/26/15	1000	2	
5	15 Trip Blank	7/24/15			per vial
6					
7					
8					
9					
10					

ORGANIC CHEMISTRY	METALS CHEMISTRY PACKAGES	MS - TOTAL METALS	GENERAL CHEMISTRY
<b>VOA - Volatile Organic Addic</b> Volatiles - Full List 1 2 3 4 5 6 7 8 9 10 BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10  <b>OS - Pesticides, PCBs</b> Pesticides & PCBs 1 2 3 4 5 6 7 8 9 10 Pesticides only 1 2 3 4 5 6 7 8 9 10 PCBs only 1 2 3 4 5 6 7 8 9 10 Toxaphene 1 2 3 4 5 6 7 8 9 10  <b>BNA - Base Neutral Acids</b> BNAs 1 2 3 4 5 6 7 8 9 10 PNAs only 1 2 3 4 5 6 7 8 9 10 BNs only 1 2 3 4 5 6 7 8 9 10  <b>Organic Specialty Requests</b> Library search - Volatiles 1 2 3 4 5 6 7 8 9 10 Library search - SemiVols 1 2 3 4 5 6 7 8 9 10 Finger Print 1 2 3 4 5 6 7 8 9 10 DRO / ORO 1 2 3 4 5 6 7 8 9 10	<b>OpMemo2 - Total</b> 1 2 3 4 5 6 7 8 9 10 (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,NI,Se,Ag,Tl,Y,Zn) <b>Michigan10 - Total</b> 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	<b>Silver - Ag</b> 1 2 3 4 5 6 7 8 9 10 <b>Aluminum - Al</b> 1 2 3 4 5 6 7 8 9 10 <b>Arsenic - As</b> 1 2 3 4 5 6 7 8 9 10 <b>Barium - Ba</b> 1 2 3 4 5 6 7 8 9 10 <b>Beryllium - Be</b> 1 2 3 4 5 6 7 8 9 10 <b>Cadmium - Cd</b> 1 2 3 4 5 6 7 8 9 10 <b>Cobalt - Co</b> 1 2 3 4 5 6 7 8 9 10 <b>Chromium - Cr</b> 1 2 3 4 5 6 7 8 9 10 <b>Copper - Cu</b> 1 2 3 4 5 6 7 8 9 10 <b>Iron - Fe</b> 1 2 3 4 5 6 7 8 9 10 <b>Mercury - Hg</b> 1 2 3 4 5 6 7 8 9 10 <b>Lithium - Li</b> 1 2 3 4 5 6 7 8 9 10 <b>Manganese - Mn</b> 1 2 3 4 5 6 7 8 9 10 <b>Molybdenum - Mo</b> 1 2 3 4 5 6 7 8 9 10 <b>Nickel - Ni</b> 1 2 3 4 5 6 7 8 9 10 <b>Lead - Pb</b> 1 2 3 4 5 6 7 8 9 10 <b>Antimony - Sb</b> 1 2 3 4 5 6 7 8 9 10 <b>Selenium - Se</b> 1 2 3 4 5 6 7 8 9 10 <b>Strontium - Sr</b> 1 2 3 4 5 6 7 8 9 10 <b>Titanium - Ti</b> 1 2 3 4 5 6 7 8 9 10 <b>Thallium - Tl</b> 1 2 3 4 5 6 7 8 9 10 <b>Uranium - U</b> 1 2 3 4 5 6 7 8 9 10 <b>Vanadium - V</b> 1 2 3 4 5 6 7 8 9 10 <b>Zinc - Zn</b> 1 2 3 4 5 6 7 8 9 10 <b>Calcium - Ca</b> 1 2 3 4 5 6 7 8 9 10 <b>Potassium - K</b> 1 2 3 4 5 6 7 8 9 10 <b>Magnesium - Mg</b> 1 2 3 4 5 6 7 8 9 10 <b>Sodium - Na</b> 1 2 3 4 5 6 7 8 9 10	<b>GS - General Chemistry</b> Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10 Chem Oxy Dem - COD 1 2 3 4 5 6 7 8 9 10 Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10 Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10 Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time	
	Print Name & Org. <b>Teresa Ducsay, MDEQ</b>	<b>Rm 100</b>		
	Signature: <i>Teresa Ducsay</i>			
Print Name & Org. <b>Rm 100</b>	<b>Melissa Smith</b>			
Signature: <i>Melissa Smith</i>			<b>8/27/15 8:00</b>	
Print Name & Org.				
Signature:				



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL LABORATORY

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

22 September 2015

Work Order: 1508224

Price: \$9,335.50

Teresa Ducsay  
MDEQ-RRD-LANSING  
525 W. Allegan Street  
Lansing, MI 48909  
RE: TREE FARM

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

George Krisztian  
Laboratory Director



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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MDEQ-RRD-LANSING  
525 W. Allegan Street  
Lansing MI, 48909

Project: TREE FARM  
Site Code: MIB000000196  
Project Manager: Teresa Ducsay

**Reported:**  
09/22/2015

**Analytical Report for Samples**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
SB-2015-01	1508224-01	Soil/Sediment	08/26/2015	08/27/2015	
SB-2015-02	1508224-02	Soil/Sediment	08/26/2015	08/27/2015	
SB-2015-03	1508224-03	Soil/Sediment	08/26/2015	08/27/2015	
SB-2015-04	1508224-04	Soil/Sediment	08/26/2015	08/27/2015	
SB-2015-05	1508224-05	Soil/Sediment	08/25/2015	08/27/2015	
SB-2015-06	1508224-06	Soil/Sediment	08/25/2015	08/27/2015	
SB-2015-07	1508224-07	Soil/Sediment	08/25/2015	08/27/2015	
SB-2015-08	1508224-08	Soil/Sediment	08/25/2015	08/27/2015	
SB-2015-09	1508224-09	Soil/Sediment	08/26/2015	08/27/2015	
SB-2015-10	1508224-10	Soil/Sediment	08/24/2015	08/27/2015	
SB-2015-03A	1508224-11	Soil/Sediment	08/26/2015	08/27/2015	

**Notes and Definitions**

Y25	Sample extract would not concentrate to the normal volume causing raised reporting limits.
Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
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 & 625 as semivolatile organics.
V	Value not available due to dilution.
T	Reported value is less than the reporting limit (RL). Result is estimated.
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
100	Aroclors not spiked.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis


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Client ID: SB-2015-01

Lab ID: 1508224-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
79-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
74-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	





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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	310	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			120 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			126 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			126 %	55.4-196		08/28/15	B5H2803	8260	



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Client ID: SB-2015-01

Lab ID: 1508224-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									See note Y20
120-82-1	1,2,4-Trichlorobenzene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	3800	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	3800	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	1500	ug/kg dry	1	09/09/15	B5H2808	8270	
9-09-2	3-Nitroaniline	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	1100	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	3800	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	5500	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
32-64-9	Dibenzofuran	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20</b>
84-66-2	Diethylphthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	Di-n-butyl phthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	2200	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	550	ug/kg dry	1	09/09/15	B5H2808	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
86-30-6	N-Nitrosodiphenylamine	ND	440	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	3800	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	730	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/09/15	B5H2808	8270	
	<i>Surrogate: 2,4,6-Tribromophenol</i>		54.3 %	20.3-115		09/09/15	B5H2808	8270	
	<i>Surrogate: 2-Fluorobiphenyl</i>		69.2 %	32.9-115		09/09/15	B5H2808	8270	
	<i>Surrogate: 2-Fluorophenol</i>		49.7 %	23.7-115		09/09/15	B5H2808	8270	
	<i>Surrogate: Nitrobenzene-d5</i>		67.5 %	31.8-115		09/09/15	B5H2808	8270	
	<i>Surrogate: Phenol-d6</i>		63.2 %	29.3-115		09/09/15	B5H2808	8270	
	<i>Surrogate: p-Terphenyl-d14</i>		84.2 %	38.5-115		09/09/15	B5H2808	8270	


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Lab ID: 1508224-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
789-02-6	2,4'-DDT	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	11	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
73494-70-5	Endrin ketone	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8-89-9	g-BHC (Lindane)	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	22	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	55	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	280	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	190	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
Surrogate: Decachlorobiphenyl			70.2 %	30-150		09/10/15	B5H3117	8081/8082	
Surrogate: Tetrachloro-m-xylene			66.3 %	30-150		09/10/15	B5H3117	8081/8082	



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<b>Organics-PCBs as Aroclors</b>									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			70.2 %		30-150	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			66.3 %		30-150	09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	90.6	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	ND	0.11	mg/kg dry	1	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	ND	0.3	mg/kg dry	10	09/09/15	B5H3104	6020/200.8	
7440-38-2	Arsenic	ND	5.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-39-3	Barium	43	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-47-3	Chromium	ND	20	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-48-4	Cobalt	ND	5.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-50-8	Copper	12	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	A09
7439-89-6	Iron	9000	5.0	mg/kg dry	10	09/15/15	B5I0102	6010/200.7	A09
7439-92-1	Lead	3.1	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7439-96-5	Manganese	780	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	ND	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-02-0	Nickel	17	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-22-4	Silver	ND	1.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-62-2	Vanadium	15	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-66-6	Zinc	22	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	




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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
73-87-5	1,2-Dichloropropane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
74-48-1	Dibromochloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	



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<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiary Amyl methylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			129 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			138 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			136 %	55.4-196		08/28/15	B5H2803	8260	



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<b>Organics-Semivolatiles</b>									
									See note Y20, Y25
120-82-1	1,2,4-Trichlorobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
95-95-4	2,4,5-Trichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
88-06-2	2,4,6-Trichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
120-83-2	2,4-Dichlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
105-67-9	2,4-Dimethylphenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
51-28-5	2,4-Dinitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
121-14-2	2,4-Dinitrotoluene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
606-20-2	2,6-Dinitrotoluene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-58-7	2-Chloronaphthalene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
95-57-8	2-Chlorophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
91-57-6	2-Methylnaphthalene	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
88-74-4	2-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
88-75-5	2-Nitrophenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
108394,106445	3 & 4-Methylphenol	ND	16000	ug/kg dry	1	09/09/15	B5H2808	8270	
709-2	3-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
7005-72-3	4-Chlorodiphenylether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
100-01-6	4-Nitroaniline	ND	12000	ug/kg dry	1	09/09/15	B5H2808	8270	
100-02-7	4-Nitrophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
83-32-9	Acenaphthene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
208-96-8	Acenaphthylene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
120-12-7	Anthracene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
103-33-3	Azobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
56-55-3	Benz[a]anthracene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
50-32-8	Benzo[a]pyrene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
205-99-2	Benzo[b]fluoranthene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
207-08-9	Benzo[k]fluoranthene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
100-51-6	Benzyl Alcohol	ND	60000	ug/kg dry	1	09/09/15	B5H2808	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-68-7	Butyl benzyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
86-74-8	Carbazole	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
218-01-9	Chrysene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
32-64-9	Dibenzofuran	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	



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Lab ID: 1508224-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
<b>See note Y20, Y25</b>									
84-66-2	Diethylphthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
131-11-3	Dimethyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
84-74-2	<b>Di-n-butyl phthalate</b>	<b>8300</b>	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
117-84-0	Di-n-octyl phthalate	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
206-44-0	Fluoranthene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
86-73-7	Fluorene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
118-74-1	Hexachlorobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
87-68-3	Hexachlorobutadiene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg dry	1	09/09/15	B5H2808	8270	
67-72-1	Hexachloroethane	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
78-59-1	Isophorone	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
91-20-3	Naphthalene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
98-95-3	Nitrobenzene	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
67-75-9	N-Nitrosodimethylamine	ND	6000	ug/kg dry	1	09/09/15	B5H2808	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
86-30-6	N-Nitrosodiphenylamine	ND	4800	ug/kg dry	1	09/09/15	B5H2808	8270	
87-86-5	Pentachlorophenol	ND	41000	ug/kg dry	1	09/09/15	B5H2808	8270	
85-01-8	Phenanthrene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
108-95-2	Phenol	ND	7900	ug/kg dry	1	09/09/15	B5H2808	8270	
129-00-0	Pyrene	ND	2400	ug/kg dry	1	09/09/15	B5H2808	8270	
<i>Surrogate: 2,4,6-Tribromophenol</i>		<i>Not Applicable</i>		<i>20.3-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: 2-Fluorobiphenyl</i>		<i>Not Applicable</i>		<i>32.9-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: 2-Fluorophenol</i>		<i>Not Applicable</i>		<i>23.7-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: Nitrobenzene-d5</i>		<i>Not Applicable</i>		<i>31.8-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: Phenol-d6</i>		<i>Not Applicable</i>		<i>29.3-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>
<i>Surrogate: p-Terphenyl-d14</i>		<i>Not Applicable</i>		<i>38.5-115</i>		<i>09/09/15</i>	<i>B5H2808</i>	<i>8270</i>	<i>V</i>



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Pesticides</b>									
									<b>See note Y20</b>
789-02-6	2,4'-DDT	180	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	830	480	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	2200	480	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	1100	480	ug/kg dry	10	09/15/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	24	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1494-70-5	Endrin ketone	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
13-89-9	g-BHC (Lindane)	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	48	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	600	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	410	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			92.2 %	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			113 %	30-150		09/10/15	B5H3117	8081/8082	




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<b>Organics-PCBs as Aroclors</b>									<b>See note Y20</b>
12674-11-2	Aroclor 1016	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11104-28-2	Aroclor 1221	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11141-16-5	Aroclor 1232	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
53469-21-9	Aroclor 1242	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
12672-29-6	Aroclor 1248	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11097-69-1	Aroclor 1254	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11096-82-5	Aroclor 1260	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
37324-23-5	Aroclor 1262	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
11100-14-4	Aroclor 1268	ND	240	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			92.2 %		30-150	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			113 %		30-150	09/10/15	B5H3117	8081/8082	
<b>Inorganics-General Chemistry</b>									
TS	% Total Solids	83.6	0.1	%	1	08/27/15	B5H2709	2540 B	
57-12-5	Total Cyanide	18	0.60	mg/kg dry	5	09/03/15	B5I0207	ASTM D7284	
<b>Inorganics-Metals</b>									
7440-36-0	Antimony	7.8	0.3	mg/kg dry	10	09/09/15	B5H3104	6020/200.8	
7440-38-2	Arsenic	21	5.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	A09
7440-39-3	Barium	700	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-41-7	Beryllium	ND	2.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-43-9	Cadmium	5.3	0.2	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-47-3	Chromium	52	20	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-48-4	Cobalt	9.2	5.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-50-8	Copper	200	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	A09
7439-89-6	Iron	87000	50	mg/kg dry	100	09/15/15	B5I0102	6010/200.7	A09
7439-92-1	Lead	1200	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7439-96-5	Manganese	510	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7439-97-6	Mercury	0.2	0.06	mg/kg dry	1	09/10/15	B5I0902	7471/245.5	
7439-98-7	Molybdenum	4.7	1.0	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	A09
7440-02-0	Nickel	37	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7782-49-2	Selenium	ND	2.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-22-4	Silver	ND	1.0	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-28-0	Thallium	ND	0.5	mg/kg dry	10	09/08/15	B5I0102	6020/200.8	
7440-62-2	Vanadium	14	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	
7440-66-6	Zinc	2100	10	mg/kg dry	100	09/08/15	B5I0102	6020/200.8	


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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Volatiles</b>									
630-20-6	1,1,1,2-Tetrachloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
71-55-6	1,1,1-Trichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
79-00-5	1,1,2-Trichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-34-3	1,1-Dichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-35-4	1,1-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
96-18-4	1,2,3-Trichloropropane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
106-93-4	1,2-Dibromoethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
95-50-1	1,2-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
107-06-2	1,2-Dichloroethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
73-87-5	1,2-Dichloropropane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
98-67-8	1,3,5-Trimethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
541-73-1	1,3-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
106-46-7	1,4-Dichlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
591-78-6	2-Hexanone	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/28/15	B5H2803	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
71-43-2	Benzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
108-86-1	Bromobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-97-5	Bromochloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-27-4	Bromodichloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-25-2	Bromoform	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-83-9	Bromomethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
75-15-0	Carbon disulfide	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
56-23-5	Carbon tetrachloride	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
108-90-7	Chlorobenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-66-3	Chloroform	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
24-48-1	Dibromochloromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	



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<b>Organics-Volatiles</b>									
74-95-3	Dibromomethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
60-29-7	Diethyl ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
100-41-4	Ethylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
98-82-8	Isopropylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/28/15	B5H2803	8260	
74-88-4	Methyl iodide	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-09-2	Methylene chloride	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
1634-04-4	Methyltertiarybutylether	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	X
104-51-8	n-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
103-65-1	n-Propylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
95-47-6	o-Xylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
99-87-6	p-Isopropyl toluene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
135-98-8	sec-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
100-42-5	Styrene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
98-06-6	tert-Butylbenzene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	08/28/15	B5H2803	8260	
994-05-8	tertiaryAmylmeylether	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
127-18-4	Tetrachloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
108-88-3	Toluene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	350	ug/kg dry	50	08/28/15	B5H2803	8260	
79-01-6	Trichloroethylene	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-69-4	Trichlorofluoromethane	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
75-01-4	Vinyl chloride	ND	71	ug/kg dry	50	08/28/15	B5H2803	8260	
Surrogate: Bromofluorobenzene			107 %	40.3-194		08/28/15	B5H2803	8260	
Surrogate: Dibromofluoromethane			114 %	52.1-217		08/28/15	B5H2803	8260	
Surrogate: Toluene-d8			112 %	55.4-196		08/28/15	B5H2803	8260	


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Lab ID: 1508224-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
120-82-1	1,2,4-Trichlorobenzene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	See note Y20
95-95-4	2,4,5-Trichlorophenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
88-06-2	2,4,6-Trichlorophenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
120-83-2	2,4-Dichlorophenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
105-67-9	2,4-Dimethylphenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
51-28-5	2,4-Dinitrophenol	ND	4000	ug/kg dry	1	09/17/15	B5I0307	8270	
121-14-2	2,4-Dinitrotoluene	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
606-20-2	2,6-Dinitrotoluene	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
91-58-7	2-Chloronaphthalene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
95-57-8	2-Chlorophenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	4000	ug/kg dry	1	09/17/15	B5I0307	8270	
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
88-74-4	2-Nitroaniline	ND	1200	ug/kg dry	1	09/17/15	B5I0307	8270	
88-75-5	2-Nitrophenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
98394,106445	3 & 4-Methylphenol	ND	1500	ug/kg dry	1	09/17/15	B5I0307	8270	
9-09-2	3-Nitroaniline	ND	1200	ug/kg dry	1	09/17/15	B5I0307	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
7005-72-3	4-Chlorodiphenylether	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
100-01-6	4-Nitroaniline	ND	1200	ug/kg dry	1	09/17/15	B5I0307	8270	
100-02-7	4-Nitrophenol	ND	4000	ug/kg dry	1	09/17/15	B5I0307	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
103-33-3	Azobenzene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
205-99-2	Benzo[b]fluoranthene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
100-51-6	Benzyl Alcohol	ND	5800	ug/kg dry	1	09/17/15	B5I0307	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
85-68-7	Butyl benzyl phthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
86-74-8	Carbazole	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
32-64-9	Dibenzofuran	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
<b>Organics-Semivolatiles</b>									
									<b>See note Y20</b>
84-66-2	Diethylphthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
131-11-3	Dimethyl phthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
84-74-2	Di-n-butyl phthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
117-84-0	Di-n-octyl phthalate	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
118-74-1	Hexachlorobenzene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
87-68-3	Hexachlorobutadiene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
77-47-4	Hexachlorocyclopentadiene	ND	2300	ug/kg dry	1	09/17/15	B5I0307	8270	
67-72-1	Hexachloroethane	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
78-59-1	Isophorone	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
98-95-3	Nitrobenzene	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
67-75-9	N-Nitrosodimethylamine	ND	580	ug/kg dry	1	09/17/15	B5I0307	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
86-30-6	N-Nitrosodiphenylamine	ND	470	ug/kg dry	1	09/17/15	B5I0307	8270	
87-86-5	Pentachlorophenol	ND	4000	ug/kg dry	1	09/17/15	B5I0307	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
108-95-2	Phenol	ND	770	ug/kg dry	1	09/17/15	B5I0307	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	09/17/15	B5I0307	8270	
<i>Surrogate: 2,4,6-Tribromophenol</i>			57.5 %	20.3-115		09/17/15	B5I0307	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			66.3 %	32.9-115		09/17/15	B5I0307	8270	
<i>Surrogate: 2-Fluorophenol</i>			49.2 %	23.7-115		09/17/15	B5I0307	8270	
<i>Surrogate: Nitrobenzene-d5</i>			63.6 %	31.8-115		09/17/15	B5I0307	8270	
<i>Surrogate: Phenol-d6</i>			61.8 %	29.3-115		09/17/15	B5I0307	8270	
<i>Surrogate: p-Terphenyl-d14</i>			80.7 %	38.5-115		09/17/15	B5I0307	8270	




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<b>Organics-Pesticides</b>									
789-02-6	2,4'-DDT	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-54-8	4,4'-DDD	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-55-9	4,4'-DDE	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
50-29-3	4,4'-DDT	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-84-6	a-BHC	ND	12	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-71-9	a-Chlordane	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
309-00-2	Aldrin	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-85-7	b-BHC	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
319-86-8	d-BHC	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
60-57-1	Dieldrin	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
959-98-8	Endosulfan I	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
33213-65-9	Endosulfan II	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1031-07-8	Endosulfan sulfate	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-20-8	Endrin	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
7421-93-4	Endrin aldehyde	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
3494-70-5	Endrin ketone	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
3-89-9	g-BHC (Lindane)	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
5103-74-2	g-Chlordane	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
76-44-8	Heptachlor	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
1024-57-3	Heptachlor epoxide	ND	23	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
87-82-1	Hexabromobenzene	ND	120	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
72-43-5	Methoxychlor	ND	58	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
2385-85-5	Mirex	ND	58	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
59080-40-9	PBB (BP-6)	ND	290	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
8001-35-2	Toxaphene	ND	200	ug/kg dry	1	09/10/15	B5H3117	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			69.3 %	30-150		09/10/15	B5H3117	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			70.7 %	30-150		09/10/15	B5H3117	8081/8082	