AKT PEERLESS™
ENVIRONMENTAL SERVICES

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Imlay City Former Fire House
338 East 3rd Street, Imlay City, Lapeer County, Michigan

Client Michigan Department of Environment, Great Lakes, & Energy
525 West Allegan Street
Lansing, Michigan 48909-7973

End User City of Imlay City
150 North Main Street
Imlay City, MI 48444

PROJECT # 18286-7-20

DATE February 23, 2024

FIGURES

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PHASE II ENVIRONMENTAL SITE ASSESSMENT

338 East 3rd Street, Imlay City, Lapeer County, Michigan
AKT Peerless Project No. 18286s-7-20

1.0 Introduction

Michigan Department of Environment, Great Lakes, and Energy (EGLE) retained AKT Peerless Environmental Services (AKT Peerless) to conduct a Phase II Environmental Site Assessment (ESA) for the property located at a 338 East 3rd Street in Imlay City, Lapeer County, Michigan (subject property).

This Phase II ESA was conducted in accordance a United States Environmental Protection Agency (USEPA) Brownfields Community Wide Assessment Grant for States and Tribes (CWAGST) Cooperative Agreement, #4B00E03214, and is based on American Society for Testing and Materials (ASTM) Designation E 1903-19 "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process."

This Phase II ESA scope of work is intended to evaluate the recognized environmental conditions (RECs) presented in Section 2.4.

AKT Peerless' Phase II ESA report documents the field activities, sampling protocols, and laboratory results conducted as part of this assessment. AKT Peerless' Phase II ESA was performed for the benefit of EGLE and the City of Imlay City, who may rely on the contents and conclusions of this report.

2.0 Background

2.1 Site Description and Physical Setting

The subject property is located in the southwest ¼ of the southeast ¼ of Section 17 in Imlay City (T.07N. /R.12E.), Lapeer County, Michigan. The subject property is located on the south side of East 3rd Street, west of M-53. See the following table for additional subject property details:

Subject Property Identifiers

Address	Tax Identification Number	Owner of Record	Approximate Acreage
338 East 3rd Street	I19-59-100-001-00	City of Imlay City	0.516

The subject property has historically been associated with the addresses 344, 345, 346, and 350; and 513, 514, and 515 East 3rd Street.

Refer to Figure 1 for a Topographic Location Map and Figure 2 for a Sample Location Map.

2.2 Subject Property History and Land Use

The subject property was utilized as a coal yard with coal storage and loading/unloading of coal into rail cars using a rail spur located on the southern portion and as a grist mill from prior to 1890 until at least

1953. The subject building was constructed in 1967 for use as a fire station. The subject property has been unoccupied since 2020.

2.3 Adjacent Property Land Use

The following table describes the current uses and/or occupants of the adjoining properties, as identified during this Phase I ESA:

Adjoining Property Data

Direction	Address	Current Use / Occupant
North	335 East 3rd Street	Commercial / Multi-tenant
Northeast	395 East 3rd Street	Commercial / Imlay City Police Department
East	400-406 East 3rd Street	Commercial / Former Department of Public Works (DPW) Garage
South	None associated	Canadian National Railroad right-of-way
West	310 East 3rd Street	Commercial / Imlay City Museum, Kitchen Designs, U.S. Postal Service

2.4 Previous Environmental Investigations

AKT Peerless reviewed the following reports previously prepared for the subject property.

2.4.1 Phase I ESA Report, July 2023, by AKT Peerless

AKT Peerless completed a Phase I ESA of the subject property on July 14, 2023, performed for EGLE on behalf of Sage Creek Winery Property, LLC in accordance with a USEPA 104k Brownfield Site Assessment (BSA) Grant (Cooperative Agreement No. 4B00E03214) and Practices for All Appropriate Inquires [(AAI), 40 Code of Federal Regulations (CFR) Part 312] and in conformance with the scope and limitations of the ASTM International Standard Practice E 1527-21 (ASTM Practice E 1527). At the time of AKT Peerless' site reconnaissance, the subject property was developed with an approximately 6,610-square foot building that was unoccupied and owned by the City of Imlay City. The exterior of the subject property consists of asphalt and gravel driveways and parking areas.

AKT Peerless' July 2023 Phase I ESA revealed no evidence of known RECs in connection with the subject property, except for the following:

REC 1 - Historical fire insurance maps indicate the presence of coal storage and a portion of a rail spur that were located on the subject property from prior to 1890 until at least the 1950s. The historical use of railroad spurs presents a REC due to potential releases of hazardous substance and petroleum products during construction (i.e., fill material and rail tie preservatives) and operation (i.e., dust and vegetation suppression). Further, historical coal storage may have resulted in a release of hazardous substances to the subsurface of the subject property. In AKT Peerless' opinion, historical coal storage operations and the presence of a rail spur present a REC to the subject property.

REC 2 - The eastern adjoining property was formerly utilized as the Imlay City Department of Public Works (DPW) garage with the use of petroleum underground storage tanks (USTs). A confirmed release was reported in 1994. Subsurface investigations and free product extraction/recovery operations conducted between 1994 to 2015 revealed concentrations of volatile organic compounds (VOCs) exceeding the Michigan EGLE Part 201 Generic Residential Cleanup Criteria (RCC) in soil and groundwater. In AKT Peerless' opinion, the identified contamination and proximity of the eastern adjoining property presents a REC to the subject property.

REC 3 - A railroad right-of-way has been present on the southern adjoining property since prior to 1890. The historical use of a railroad right-of-way presents a REC due to potential releases of hazardous substance and petroleum products during construction (i.e., fill material and rail tie preservatives) and operation (i.e., dust and vegetation suppression). In AKT Peerless' opinion, the presence of a railroad right-of-way on the southern adjoining property presents a REC to the subject property.

REC 4 - The northern adjoining property was in operation as a foundry and machine shop from at least 1890 through the 1980s with unknown waste handling and housekeeping practices. The potential exists that hazardous materials may have impacted the northern adjoining property. Groundwater direction in the area of the subject property was determined to be to the southeast; the possibility exists for potential contaminant migration towards the subject property. AKT Peerless did not identify, and was not provided with, documents pertaining to previous subsurface investigations of the northern adjoining property. In AKT Peerless' opinion, the long-term historical operations of the northern adjoining property as a foundry and machine shop present a REC to the subject property.

The July 2023 Phase I ESA did not identify any controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs).

2.4.2 Phase I ESA Report Update, December 2023, by AKT Peerless

AKT Peerless conducted a Phase I ESA Update of the subject property as described below in accordance with USEPA Standards and Practices for AAI, 40 CFR Part 312 and ASTM Practice E 1527. This Phase I ESA Update was performed for EGLE and Sage Creek Winery Property, LLC in connection with potential redevelopment and purchase of the subject property utilizing a USEPA 104k Brownfields CWAGST Cooperative Agreement No. 4B00E03214.

AKT Peerless' December 2023 Phase I ESA Update revealed no evidence of known RECs in connection with the subject property, except for the following:

REC 1 - Historical fire insurance maps indicated the presence of coal storage, and a portion of a rail spur were located on the subject property from prior to 1890 until at least the 1950s. The results of AKT Peerless 2023 Phase II ESA activities identified soil and groundwater contamination at the subject property. Several hazardous substances and petroleum products were found within on-site soil and groundwater samples exceeding the current EGLE Part 201 Generic RCC. Further, AKT Peerless observed evidence of non-native fill materials (coal and slag) from below the existing surface cover to 7.5 feet below ground surface (bgs) in select borings. Based on laboratory analytical results, the subject property meets the definition of a *facility,* as defined in Part 201 of the Natural Resources and. Environmental Protection Act (NREPA), Michigan Public

Act (PA) 451, 1994, as amended. In AKT Peerless' opinion, the presence of known contamination at the subject property represents a REC.

3.0 Phase II Environmental Site Assessment Activities

The following sections summarize the site assessment activities conducted by AKT Peerless.

3.1 Scope of Assessment

In September 2023, AKT Peerless conducted a subsurface investigation of the subject property that included: (1) the advancement of nine soil borings, (2) the installation of six temporary groundwater monitoring wells, (3) the installation of four sub-slab vapor points, (4) the collection of soil, groundwater, and soil gas samples, and (5) the collection of quality control quality assurance (QA/QC) samples for laboratory analyses of select parameters including VOCs, polynuclear aromatic hydrocarbons (PNAs), Michigan (MI) 10 Metals or mercury, and Per- and polyfluoroalkyl substances (PFAS).

The following samples were submitted for laboratory analyses:

- 10 soil samples for VOCs, PNAs, and Michigan 10 Metals
- One soil sample for VOCs and PNAs
- Two groundwater samples for VOCs, PNAs, MI 10 Metals, and PFAS
- Four groundwater sample for VOCs, PNAs, and MI 10 Metals
- Four soil gas samples for VOCs, PNAs, and mercury
- Four soil, five groundwater, and two soil gas QA/QC samples

The following table summarizes each REC, the site investigation activities performed to address each REC, and the laboratory parameters used to address each REC.

Summary of Investigation Activity

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
1	Historical coal storage and rail spur	AKT-1, AKT-2, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, AKT-8, AKT-9	VOCs, PNAs, MI 10 Metals
		AKT-1/TMW, AKT-4/TMW*, AKT-5/TMW, AKT-6/TMW, AKT-7/TMW, AKT-8/TMW*	VOCs, PNAs, MI 10 Metals, PFAS
		VP-1, VP-2, VP-3, VP-4	VOCs, PNAs, mercury, total
2	Adjoining property utilized as DPW with use of USTs	AKT-6	VOCs, PNAs, MI 10 Metals
		AKT-6/TMW	VOCs, PNAs, MI 10 Metals

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
3	Railroad right-of-way on the southern adjoining property with potential for releases of hazardous chemicals and/or petroleum products.	AKT-6, AKT-7, AKT-8	VOCs, PNAs, MI 10 Metals
		AKT-6/TMW, AKT-7/TMW, AKT-8/TMW*	VOCs, PNAs, MI 10 Metals, PFAS
4	Northern adjoining property operated as machine shop and foundry with unknown waste handling practices.	AKT-1	VOCs, PNAs, MI 10 Metals
		AKT-1/TMW	VOCs, PNAs, MI 10 Metals

*At the request of EGLE, two groundwater samples (AKT-4/TMW and AKT-8/TMW) were also evaluated for the nature and extent of potential PFAS contamination resulting from historical uses at the subject property.

3.1.1 Soil Evaluation

On September 25 and 26, 2023, AKT Peerless: (1) advanced nine soil borings (AKT-1 through AKT-9) at the subject property. AKT Peerless used hydraulic drive/direct-push (Geoprobe®) sampling techniques and followed the guidance outlined in ASTM publication E1903-19 "Standard Practice of Environmental Site Assessments: Phase II Environmental Site Assessment Process." AKT Peerless collected continuous soil samples from the soil borings in four-foot intervals to the maximum depth explored of 24.0 feet bgs. AKT Peerless personnel inspected, field-screened, and logged the samples collected at each soil boring location.

Refer to Figure 2 for a Sample Location Map. Soil Boring logs are provided in Appendix A.

3.1.2 Groundwater Evaluation

AKT Peerless encountered saturated soil in six (AKT-1/TMW, AKT-4/TMW, AKT-5/TMW, AKT-6/TMW, AKT-7/TMW, and AKT-8/TMW) of the nine soil borings advanced at the subject property. AKT Peerless installed a temporary groundwater monitor well at these locations. A one-inch PVC riser with a five-foot screen was utilized for each temporary groundwater monitor well. Groundwater sampling was conducted using low-flow sampling methodologies described in the April 1996 United States Environmental Protection Agency (U.S. EPA) document Groundwater Issue titled "Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures". Stabilization data recorded for each well were documented in Low-Flow Sampling Logs included in Appendix A. Refer to Figure 2 for a site map with temporary monitor well locations.

3.1.3 Soil Gas Evaluation

AKT Peerless advanced four sub-slab soil gas points beneath the slab of the subject building with the intent of collection of soil vapors. A rotary hammer drill and a 5/8-inch drill bit created a small hole through the subject building slab that extends at least six inches into the underlying soil to form a void to prevent vapor infiltration from the surface. The concrete dust was removed using a portable vacuum from the hole and a vapor pin installed with a dead blow hammer. The sub-slab soil gas point was sealed at the surface to prevent ambient air infiltration and was allowed to equilibrate for at least 24 hours before collecting a sample. A discrete sample was collected from directly beneath the surface covering in a laboratory supplied vacuum bottle and laboratory supplied sorbent tubes.

Refer to Figure 2 for a Sample Location Map. Soil gas logs are provided in Appendix A.

3.1.4 Deviations from the Sampling and Analysis Plan

This Phase II ESA was funded through EGLE's BSA Program. On August 9, 2023, AKT Peerless prepared a Phase II Sampling and Analysis Plan (SAP) on behalf of EGLE and Sage Creek Winery, LLC. During the completion of field activities, the following deviations from the approved SAP were made:

- Soil boring location AKT-6 was intended to be advanced to 24.0 feet bgs; however, AKT Peerless encountered groundwater at 9.0 feet bgs and a clay layer at 13.0 to 16.0 feet bgs; therefore, AKT Peerless did not advance this soil boring to the proposed depth.
- Soil boring location AKT-3 was intended to be advanced to 24.0 feet bgs; however, AKT Peerless encountered a clay layer from 8.0 to 20.0 feet bgs; therefore, AKT Peerless did not advance this soil boring to the proposed depth.
- Soil boring location AKT-2 was intended to be converted into a temporary monitoring well; however, groundwater was not encountered in sufficient volume to collect a groundwater sample. AKT Peerless converted soil boring location AKT-4 into a temporary monitoring well in lieu of soil boring AKT-2.
- Groundwater was not encountered in sufficient volume at sample location AKT-6/TMW to conduct low-flow sampling. However, after ample time was given to allow the temporary monitoring well to recharge, groundwater was encountered in sufficient volume to collect samples to be submitted for laboratory analysis of VOCs and PNAs.

3.1.5 Quality Assurance/Quality Control (QA/QC)

To ensure the accuracy of data collected during on site activities, AKT Peerless implemented proper QA/QC measures. The QA/QC procedures included but were not limited to: (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.1.6 Decontamination of Equipment

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

3.1.7 Calibration of Field Equipment

All field instruments were calibrated prior to first use on-site to ensure accuracy. Field instruments utilized during investigation activities at this subject property were a photoionization detector (PID) and a sample scale.

During AKT Peerless' Phase II ESA, a PID was used to screen all soil samples. The PID was maintained in a calibrated condition using 100 ppm isobutylene span gas prior to subsurface investigations.

A sample scale was utilized during soil sampling activities to weigh approximately 10 grams of soil for the methanol preserved samples (i.e., soil samples designated for VOC analysis). The scale was maintained in a calibrated condition using calibration weights in accordance with the manufacturer's specifications.

3.1.8 Documentation of Activities

During AKT Peerless' Phase II ESA activities, subject property conditions (i.e., soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil and groundwater samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as: (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM publication D-2488 "Unified Soil Classification System." All soil, groundwater, and soil gas samples were delivered to EGLE Environmental Laboratory in Lansing, Michigan under chain-of-custody documentation. See Appendix A for AKT Peerless' soil boring and soil gas logs. See Figure 2 for the Site Map with Sample Locations.

3.1.9 Sample Preservation Techniques

AKT Peerless collected soil samples according to USEPA Publication SW-846, "Test Methods for Evaluating Solid Waste." Soil samples were collected in laboratory-supplied containers, stored on ice or at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for VOC analyses were field preserved with methanol in accordance with U.S. EPA Method 5035. Soil samples collected for PNAs and metals analyses were collected in unpreserved, 8-ounce wide-mouth jars.

Groundwater samples collected from temporary wells were collected with a peristaltic pump and dedicated tubing. Groundwater samples for VOC analyses were collected with zero headspace into 40 ml glass vials and preserved with hydrochloric acid. Groundwater samples for metal analyses were collected into plastic bottles and preserved with nitric acid. Groundwater samples collected for analysis of PNAs were collected into 1-liter amber glass jars. Groundwater samples collected for analysis of PFAS were collected in unpreserved, laboratory-supplied plastic containers labeled using a ball point pen and placed in a Ziploc bag (double bagged).

Soil gas samples submitted for analysis of VOCs were collected in one liter bottle vacs with a vacuum of approximately -28mmHg prepared by the laboratory and stored at room temperature. Soil gas samples submitted for analysis of PNAs and mercury (total) were collected using laboratory supplied sorbent tubes connected with silicon tubing to a calibrated pump and rotameter at a flow rate of approximately 0.2 mL per minute. The soil gas samples were stored on ice or at approximately 4 degrees Celsius and submitted under chain-of-custody documentation.

3.1.10 QA/QC Sample Collection

AKT Peerless collected QA/QC samples for soil, water, and soil gas matrices in accordance with AKT Peerless' Quality Assurance Project Plan, dated January 23, 2023, and EGLE - Remediation and Redevelopment Division (RRD) Operational Memorandum No. 2, Attachment 5. The following samples were submitted for laboratory analysis.

Summary of QA/QC Sampling

Number of Assessment Samples & Matrix	Number of QA/QC Samples				
	Field Equipment Blank	Field Duplicate	Trip Blank	Methanol Blank	MS/MSD
Soil	NA	1	0	1	1-MS / 1-MSD
Water	1	1	1	NA	1-MS / 1-MSD
Soi Gas	NA	1	NA	NA	NA

NA – Not Applicable

3.2 Laboratory Analysis and Methods

AKT Peerless submitted 10 soil samples, six groundwater samples, and four soil gas samples as well as four QA/QC samples for soil, four QA/QC samples for groundwater, and two QA/QC samples for soil gas laboratory analyses. The following table summarizes the location, depth, matrix, and laboratory analysis for each sample.

Sample Collection Summary

Sample Identification	Sample Matrix	Sample Interval (feet, bgs)	Laboratory Analytical Parameter(s)
AKT-1	Soil	2.0-2.5’	VOCs, PNAs, MI 10 Metals
AKT-2	Soil	5.5-6.0’	VOCs, PNAs, MI 10 Metals
AKT-3	Soil	3.0-3.5’	VOCs, PNAs, MI 10 Metals
AKT-4	Soil	2.5-3.0’	VOCs, PNAs, MI 10 Metals
AKT-5	Soil	2.0-2.5’	VOCs, PNAs, MI 10 Metals
AKT-6	Soil	1.5-2.0	VOCs, PNAs, MI 10 Metals
AKT-7S	Soil	2.5-3.0’	VOCs, PNAs, MI 10 Metals
AKT-7D	Soil	17.5-18.0’	VOCs, PNAs, MI 10 Metals
AKT-8S	Soil	3.5-4.0’	VOCs, PNAs, MI 10 Metals
AKT-8D	Soil	18.5-19.0’	VOCs, PNAs, MI 10 Metals
AKT-9	Soil	2.0-2.5’	VOCs, PNAs, MI 10 Metals
AKT-1/TMW	Groundwater	7.0-12.0’	VOCs, PNAs, MI 10 Metals

Sample Identification	Sample Matrix	Sample Interval (feet, bgs)	Laboratory Analytical Parameter(s)
AKT-4/TMW	Groundwater	19.0-24.0’	VOCs, PNAs, MI 10 Metals, PFAS
AKT-5/TMW	Groundwater	7-12.0’	VOCs, PNAs, MI 10 Metals
AKT-6/TMW	Groundwater	8.0-13.0’	VOCs, PNAs
AKT-7/TMW	Groundwater	7.0-12.0’	VOCs, PNAs, MI 10 Metals
AKT-8/TMW	Groundwater	7.0-12.0’	VOCs, PNAs, MI 10 Metals, PFAS
VP-1	Soil Gas	Sub-slab	VOCs, PNAs, mercury
VP-2	Soil Gas	Sub-slab	VOCs, PNAs, mercury
VP-3	Soil Gas	Sub-slab	VOCs, PNAs, mercury
VP-4	Soil Gas	Sub-slab	VOCs, PNAs, mercury
AKT-Dup Soil (AKT-5)	Soil	2.0-2.5’	VOCs, PNAs, MI 10 Metals
AKT-Dup Water (AKT-1/TMW)	Groundwater	19.0-24.0’	VOCs, PNAs, MI 10 Metals
MS (AKT-7D)	Soil	17.5-18.0’	VOCs, PNAs, MI 10 Metals
MSD (AKT-7D)	Soil	17.5-18.0’	VOCs, PNAs, MI 10 Metals
MS (AKT-5/TMW)	Groundwater	7.0-12.0’	VOCs, PNAs, MI 10 Metals
MSD (AKT-5/TMW)	Groundwater	7.0-12.0’	VOCs, PNAs, MI 10 Metals
Equipment Blank	Water	NA	VOCs, PNAs, MI 10 Metals, PFAS
Trip Blank	Water	NA	PFAS
VP-DUP	Soil Gas	Sub-slab	VOCs, PNAs, mercury
Field Spike	Soil Gas	Sub-slab	mercury

The laboratory analyzed the samples for: (1) VOCs in accordance with USEPA Method 8260 and TO-15; (2) PNAs in accordance with USEPA Method 8270 and TO-13A; (3) metals in accordance with USEPA Methods 200.8/245.5; (4) PFAS in accordance with USEPA Method 8327, and (5) mercury (total) in accordance with NIOSH 6009.

4.0 Evaluation and Presentation of Results

4.1 Subsurface Conditions

The following sections summarize the physical soil and groundwater conditions at the subject property.

4.1.1 Soil and Groundwater Conditions based on Published Material

According to the United States Department of Agriculture, "*Soil Survey of Lapeer County, Michigan,"* the soil in the area is classified as the Wawasee loam, 2 to 6 percent slopes. This soil is described as *"well drained loam on moraines on till plains."*

According to the Michigan Geological Survey Division's publication, *"Quaternary Geology of Southern Michigan*," the soil in the area is Lacustrine clay and silt and is varved in some localities. This soil is described as gray to dark reddish brown and is varved in some localities. The soil chiefly underlies extensive, flat, low-lying areas formerly inundated by glacial Great Lakes. The thickness ranges from 10 to 30 feet.

Saturated soil was encountered in six of the nine soil boring locations at depths ranging between 9.0 and 24.0 feet bgs.

4.1.2 Soil and Groundwater Conditions based on Field Observations

During drilling activities, AKT Peerless encountered the following soil types:

- Asphalt, concrete, gravel, or topsoil from the ground surface to 0.1 feet bgs.
- SAND from 0.5 feet bgs cover to approximately 8.0 feet bgs, as well as 6.0, to 24.0 feet in select borings. Banded layers of sand from 9.0 to 9.5' bgs, 11.5 to 13.0 feet bgs, 14.0 to 16.0 feet bgs, and 17.0 to 19.0 feet bgs in select borings. This sand consisted of fine to medium grain, brown, dark brown, and/or black in color, and contained gravel, trace coal, and slag in select borings.
- Sandy Clay from 3.5 to 11.0 feet bgs in select borings. This sandy clay was low-stiff, brown and gray in color, and contained gravel.
- SILTY Sand from 9.0 to 19.0 feet bgs in soil borings, AKT-1 and AKT-7. This silty sand was very fine to fine grained and was brown and gray in color.
- CLAY from 3.0 to 24.0 feet bgs in select borings. Banded layers of clay from 7.0 to 8.5 feet bgs, 13.0 to 16.0 feet bgs, and 16.0 to 17.5 feet bgs in select borings. This clay was low-stiff to medium stiffness, dark brown, brown, and gray in color and contained gravel.

AKT Peerless encountered groundwater in six soil borings at depths ranging between 9.0 and 24.0 feet bgs.

The subsurface soils at the property are consistent with the description of "Lacustrine clay and silt and are varved in some localities" as described in the *Quaternary Geology of Southern Michigan.* See Figure 2 for a Site Map with Sample Locations. See Appendix A for AKT Peerless' Soil Boring Logs.

4.2 Laboratory Analytical Results

AKT Peerless collected soil, groundwater, and soil gas samples for the purpose of evaluating general site environmental conditions and support future land use planning. When appropriate, analytical results were compared with Michigan EGLE Generic RCC provided in Michigan Administrative Rules 299.1

through 299.50. AKT Peerless also compared the soil, groundwater, and soil gas laboratory analytical results to the EGLE Volatilization to Indoor Air Pathway (VIAP) Screening Levels.

4.2.1 Soil Analytical Results

AKT Peerless submitted 11 soil samples for laboratory analysis of select parameters including VOCs, PNAs, and MI 10 Metals. The results of the laboratory analyses of the soil samples are summarized in the table below:

Summary of Soil Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria or Screening Levels (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Arsenic	7440-38-2	AKT-1 (2.0-2.5') AKT-2 (5.5-6.0') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-8S (3.5-4.0') AKT-8D (18.5-19.0') AKT-DUP SOIL (AKT-5) (2.0-2.5')	DWP / 4,600 GSIP / 4,600 DC / 7,600	31,000 / AKT-2
Chromium, Total	7440-47-3	AKT-1 (2.0-2.5') AKT-2 (5.5-6.0') AKT-3 (3.0-3.5') AKT-7D (17.5-18.0') AKT-8S (3.5-4.0') AKT-8D (18.5-19.0') AKT-9 (2.0-2.5')	GSIP / 3,300	14,000 / AKT-8S, AKT-8D
Mercury, Total	7439-97-6	AKT-1 (2.0-2.5') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 50 VIAP / 22	100 / AKT-1, AKT-4

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria or Screening Levels (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Selenium	7782-49-2	AKT-1 (2.0-2.5') AKT-2 (5.5-6.0') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-7S (2.5-3.0') AKT-8S (3.5-4.0') AKT-8D (18.5-19.0') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 400	2,600 / AKT-4
Benzene	71-43-2	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	DWP / 100 VIAP / 1.7	360 / AKT-6
Cyclohexane	110-82-7	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 320	1,900 / AKT-6
Ethylbenzene	100-41-4	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 360 VIAP / 12	620 / AKT-6

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria or Screening Levels (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
n-Heptane	142-82-5	AKT-2 (5.5-6.0') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 130	1,000 / AKT-6
Hexane	110-54-3	AKT-2 (5.5-6.0') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 25	790 / AKT-6
Isopropyl benzene	98-82-8	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 3.8	290 / AKT-DUP SOIL (AKT-5)
Methylcyclopentane	96-37-7	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 29	3,500 / AKT-6
2-Methylnaphthalene	91-57-6	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 4,200 VIAP / 1,700	16,000 / AKT-4

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria or Screening Levels (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Naphthalene	91-20-3	AKT-1 (2.0-2.5') AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 730 VIAP / 67	10,000 / AKT-4
Phenanthrene	85-01-8	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 2,100 VIAP / 1,700	6,600 / AKT-4
1,2,3-Trimethylbenzene	526-73-8	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 570 VIAP / 270	1,500 / AKT-6
1,2,4-Trimethylbenzene	95-63-6	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 570 VIAP / 150	1,800 / AKT-6
1,3,5-Trimethylbenzene	108-67-8	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	VIAP / 100	400 / AKT-6

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria or Screening Levels (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Xylenes	1330-20-7	AKT-3 (3.0-3.5') AKT-4 (2.5-3.0') AKT-5 (2.0-2.5') AKT-6 (1.5-2.0') AKT-7S (2.5-3.0') AKT-9 (2.0-2.5') AKT-DUP SOIL (AKT-5) (2.0-2.5')	GSIP / 980 VIAP / 280	4,000 / AKT-6

Notes:
Sample identification: AKT-# indicates soil boring and (#-#') indicates sample depth in feet.
µg/kg – microgram per kilogram
DWP – Drinking Water Protection Criteria
GSIP – Groundwater Surface Water Interface Protection Criteria
VIAP – Volatilization to Indoor Air Pathway Screening Levels

The results of the laboratory analyses of the soil samples identified concentrations of arsenic, chromium, mercury (total), and/or selenium in subsurface soils at soil boring locations AKT-1, AKT-2, AKT-3, AKT-4, AKT-5, AKT-7, AKT-8, and AKT-9 exceeding the EGLE Part 201 Residential Drinking Water Protection (DWP) criteria, Groundwater Surface Water Interface Protection (GSIP) criteria, Direct Contact (DC) criteria, and/or EGLE September 2020 Residential VIAP screening levels. Additional metals were detected in excess of laboratory method detection limits (MDLs); however, were below EGLE Part 201 RCC. Additional metals were detected in excess of laboratory MDLs; however, were below EGLE Part 201 RCC.

The results of the laboratory analyses of the soil samples identified concentrations of 2-methylnaphthalene, naphthalene, and/or phenanthrene in subsurface soils at soil boring locations AKT-1, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 exceeding EGLE Part 201 Residential GSIP criteria and EGLE September 2020 Residential VIAP screening levels. Additional PNAs were detected in excess of laboratory MDL; however, were below the EGLE Part 201 RCC and EGLE September 2020 Residential VIAP screening levels.

The results of the laboratory analyses of the soil samples identified concentrations of benzene, cyclohexane, ethylbenzene, n-heptane, hexane, isopropyl benzene, methylcyclopentane, 2-methylnaphthalene, naphthalene, 1,2,3-trimethylbenzene, 1,2,4- trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes in subsurface soils at soil boring locations AKT-2, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 exceeding the EGLE Part 201 Residential DWP criteria, GSIP criteria, and/or EGLE September 2020 Residential VIAP screening levels. Additional VOCs were detected in excess of laboratory MDL; however, were below the EGLE Part 201 RCC and EGLE September 2020 Residential VIAP screening levels.

Refer to Figure 3 for a site map with soil analytical results exceeding EGLE Generic RCC and EGLE September 2020 Residential VIAP screening levels. Refer to Table 1 for a summary of soil analytical results. Refer to Appendix B for a complete analytical laboratory report.

4.2.2 Groundwater Analytical Results

AKT Peerless submitted five groundwater samples for laboratory analysis of VOCs, PNAs, MI 10 Metals, and two groundwater samples for laboratory analysis of PFAS. The results of the laboratory analyses of the groundwater samples are summarized in the table below:

Summary of Groundwater Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance and Depth	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/L)	Maximum Concentration (ug/L)/Sample Location
Arsenic	7440-38-2	AKT-8/TMW (7.0-12.0')	DW / 10 GSI / 10	13/ AKT-8/TMW
Chromium, Total	7440-47-3	AKT-8/TMW (7.0-12.0')	GSI / 11	16 / AKT-8/TMW
Lead	7439-92-1	AKT-8/TMW (7.0-12.0')	DW / 4.0	15 / AKT-8/TMW

Notes:
Sample identification: AKT-#/TMW indicates soil boring location/temporary monitoring well and (#-#') indicates sample depth interval in feet.
ug/L – microgram per liter
DW – Drinking Water Criteria
GSI – Groundwater Surface Water Interface Criteria

The results of the laboratory analyses of the groundwater samples identified concentrations of arsenic, chromium, and lead at soil boring location AKT-8/TMW exceeding the EGLE Part 201 Residential Drinking Water (DW) criteria and/or Groundwater Surface Water Interface (GSI) criteria. Additional metals and PFAS compounds were detected above the laboratory MDL; however, were below the EGLE Part 201 RCC and EGLE September 2020 Residential VIAP screening levels. All VOCs and PNAs detected were below the laboratory MDLs and EGLE September 2020 Residential VIAP screening levels.

Refer to Figure 4 for a site map with groundwater analytical results exceeding EGLE Part 201 RCC and EGLE VIAP Screening Levels. Refer to Table 2 for a summary of groundwater analytical results. Refer to Appendix B for a complete analytical laboratory report.

4.2.3 Soil Gas Analytical Results

AKT Peerless submitted four soil gas samples for laboratory analysis of VOCs, PNAs, and mercury. Concentrations of VOCs were detected within the soil gas samples above the laboratory method detection limit; however, were below the EGLE September 2020 Residential VIAP screening levels. Concentrations of PNAs were detected within select soil gas samples below the laboratory MDLs. Concentrations of mercury (total) were detected within select soil gas samples below laboratory MDLs.

Refer to Table 3 for a summary of soil gas analytical results. Refer to Appendix B for a complete analytical laboratory report.

Based on laboratory analytical results, the subject property meets the definition of a "facility," as defined in Part 201.

4.2.4 Quality Assurance/Quality Control Analytical Results

AKT Peerless collected QA/QC samples in accordance with AKT Peerless' Quality Assurance Project Plan, dated January 23, 2023, and the EGLE - RRD Operational Memorandum No. 2, Attachment 5.

Soil

The soil duplicate samples were collected from soil boring AKT-8 and were within the expected limits for VOCs, PNAs, and metals. The MS/MSD samples were within the expected limits for VOCs, PNAs, and metals.

Groundwater

The groundwater duplicate sample collected from the temporary monitoring well location AKT-1/TMW was within the expected limits for VOCs, PNAs, and metals. The MS/MSD samples were within the expected limits for VOCs, PNAs, and metals.

Soil Gas

The soil gas duplicate sample collected from the sub-slab soil gas point location VP-2 was within the expected limits for VOCs, PNAs, and metals. The MS/MSD samples were within the expected limits for VOCs, PNAs, and mercury (total).

5.0 Summary, Conclusions, and Recommendations

The following sections summarize the investigation conducted by AKT Peerless at the subject property.

5.1 Summary of Environmental Concerns

Based on AKT Peerless' July 2023 Phase I ESA, the following environmental concerns were identified:

- Historical use of the subject property for coal storage and rail spur.
- Adjoining property utilized as DPW with use of USTs.
- Railroad right-of-way on the southern adjoining property with potential for releases of hazardous chemicals and/or petroleum products.
- Northern adjoining property operating as machine shop and foundry with unknown waste handling practices.

5.2 Summary of Subsurface Investigation

On September 25 and 26, 2023, AKT Peerless conducted a subsurface investigation at the subject property to further evaluate environmental concerns identified during previous environmental investigations. AKT Peerless: (1) drilled nine soil borings, (2) installed six temporary monitoring wells, (3) installed four sub-slab vapor pins, and (4) collected soil, groundwater, and soil gas samples for laboratory analyses. AKT Peerless submitted soil and groundwater samples for laboratory analyses of select parameters, including VOCs, PNAs, MI 10 Metals, and/or PFAS. AKT Peerless submitted soil gas samples for laboratory analyses of VOCs, PNAs, and mercury, total.

5.3 Conclusions

AKT Peerless conducted soil, groundwater, and soil sampling in areas most likely to be impacted by contaminants based on the past use of the subject property. The results of the investigation indicated the following:

SOIL

- Arsenic was detected in subsurface soils at soil boring locations AKT-1, AKT-2, AKT-3, AKT-4, AKT-5, and AKT-8 at concentrations exceeding EGLE Part 201 Generic RCC for DWP, GSIP, and/or DC criteria.
- Chromium was detected in subsurface soils at soil boring locations AKT-1, AKT-2, AKT-3, AKT-7, AKT-8, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria.
- Mercury, total, was detected in subsurface soils at soil boring locations AKT-1, AKT-3, AKT-4, AKT-5, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and EGLE Residential VIAP screening levels.
- Selenium was detected in subsurface soils at soil boring locations AKT-1, AKT-2, AKT-3, AKT-4, AKT-5, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria.
- 2-Methylnaphthalene was detected in subsurface soils at soil boring locations: AKT-3, AKT-4, AKT-5, AKT-6, and AKT-7 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and EGLE Residential VIAP screening levels.
- Naphthalene was detected in subsurface soils at soil boring locations AKT-1, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and EGLE Residential VIAP screening levels.
- Phenanthrene was detected in subsurface soils at soil boring location AKT-3, AKT-4, AKT-5, AKT-6, and AKT-7 at concentration exceeding EGLE Part 201 Generic RCC for GSIP criteria and EGLE Residential VIAP screening levels.
- Benzene was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for DWP criteria and/or EGLE Residential VIAP screening levels.
- Ethylbenzene was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and/or EGLE Residential VIAP screening levels.
- N-heptane was detected in subsurface soils at soil boring locations AKT-2, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Residential VIAP screening levels.
- Hexane was detected in subsurface soils at soil boring locations AKT-2, AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Residential VIAP screening levels.
- Isopropylbenzene was detected in subsurface soils at soil boring location AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Residential VIAP screening levels.
- Methylcyclopentane was detected in subsurface soils at soil boring location AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Residential VIAP screening levels.
- 1,2,3-Trimethylbenzene was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and/or EGLE Residential VIAP screening levels.
- 1,2,4-Trimethylbenzene was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and/or EGLE Residential VIAP screening levels.

- 1,3,5-Trimethylbenzene was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Residential VIAP screening levels.
- Xylenes was detected in subsurface soils at soil boring locations AKT-3, AKT-4, AKT-5, AKT-6, AKT-7, and AKT-9 at concentrations exceeding EGLE Part 201 Generic RCC for GSIP criteria and EGLE Residential VIAP screening levels.

GROUNDWATER

- Concentrations of arsenic were identified in groundwater sample AKT-8/TMW exceeding EGLE RCC for DW and GSI criteria.
- Concentrations of chromium, total, were identified in groundwater sample AKT-8/TMW exceeding EGLE RCC for GSI criteria.
- Concentrations of lead were identified in groundwater sample AKT-8/TMW exceeding EGLE RCC for DW criteria.

Soil Gas

- Concentrations of VOCs were detected within the soil gas samples above the laboratory MDLs; however, were below the EGLE September 2020 Residential VIAP screening levels.

Based on laboratory analytical results, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan PA 451, 1994, as amended.

5.4 Recommendations

AKT Peerless recommends the following for the current owner and any future owner/operator(s) at the subject property.

5.4.1 Current Owner

Based on analytical results, the subject property meets the definition of a facility, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to EGLE and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

5.4.2 Future Owner(s)/Operator(s)

In addition to those recommendations provided in Section 5.4.1, AKT Peerless recommends any future owner(s)/operator(s) prepare a BEA report. Section 26(1)(c) of Part 201 provides certain liability protections to a person, who becomes an owner or operator of a *facility* on, or after June 5, 1995, if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to EGLE and subsequent purchaser or transferee.

In addition, because the subject property meets the definition of a facility, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to EGLE and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

A future owner/operator may be required to conduct additional subsurface investigation to further evaluate for exposure pathways and screening levels at the subject property (i.e., drinking water, direct contact, indoor air inhalation, soil saturation) in connection with known contamination to comply with due care obligations.

6.0 Limitations

The information and opinions obtained in this report are for the exclusive use of EGLE and City of Imlay City. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties, who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and EGLE.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or

guarantee that the information provided is exhaustive or that the information provided by EGLE, the City of Imlay City, or third parties is complete or accurate.

7.0 Signatures of Environmental Professionals

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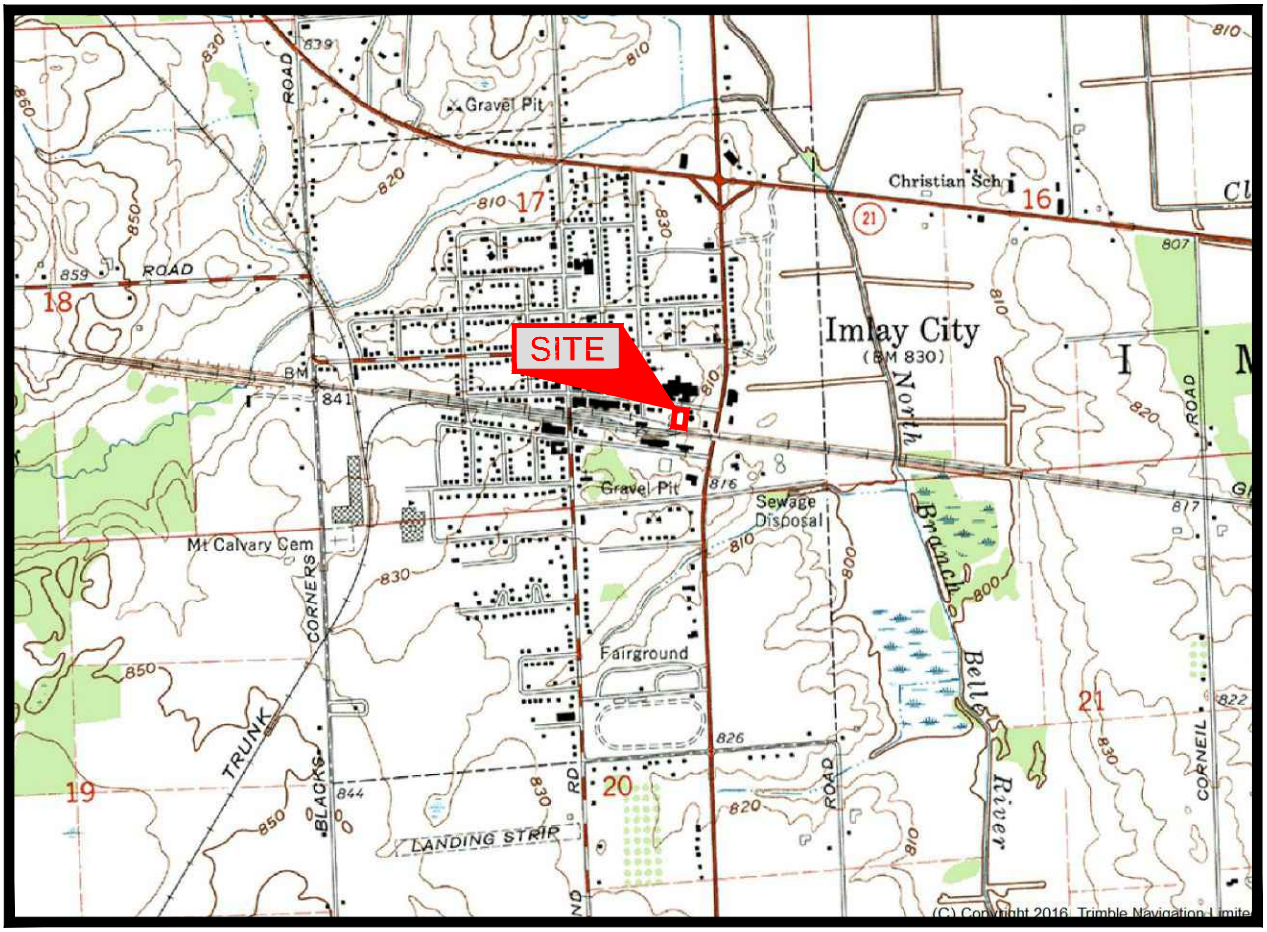
FIGURES

IMLAY CITY QUADRANGLE

MICHIGAN - LAPEER COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.7 N.-R.12 E.

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

MICHIGAN
QUADRANGLE LOCATION

IMAGE TAKEN FROM 1967 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

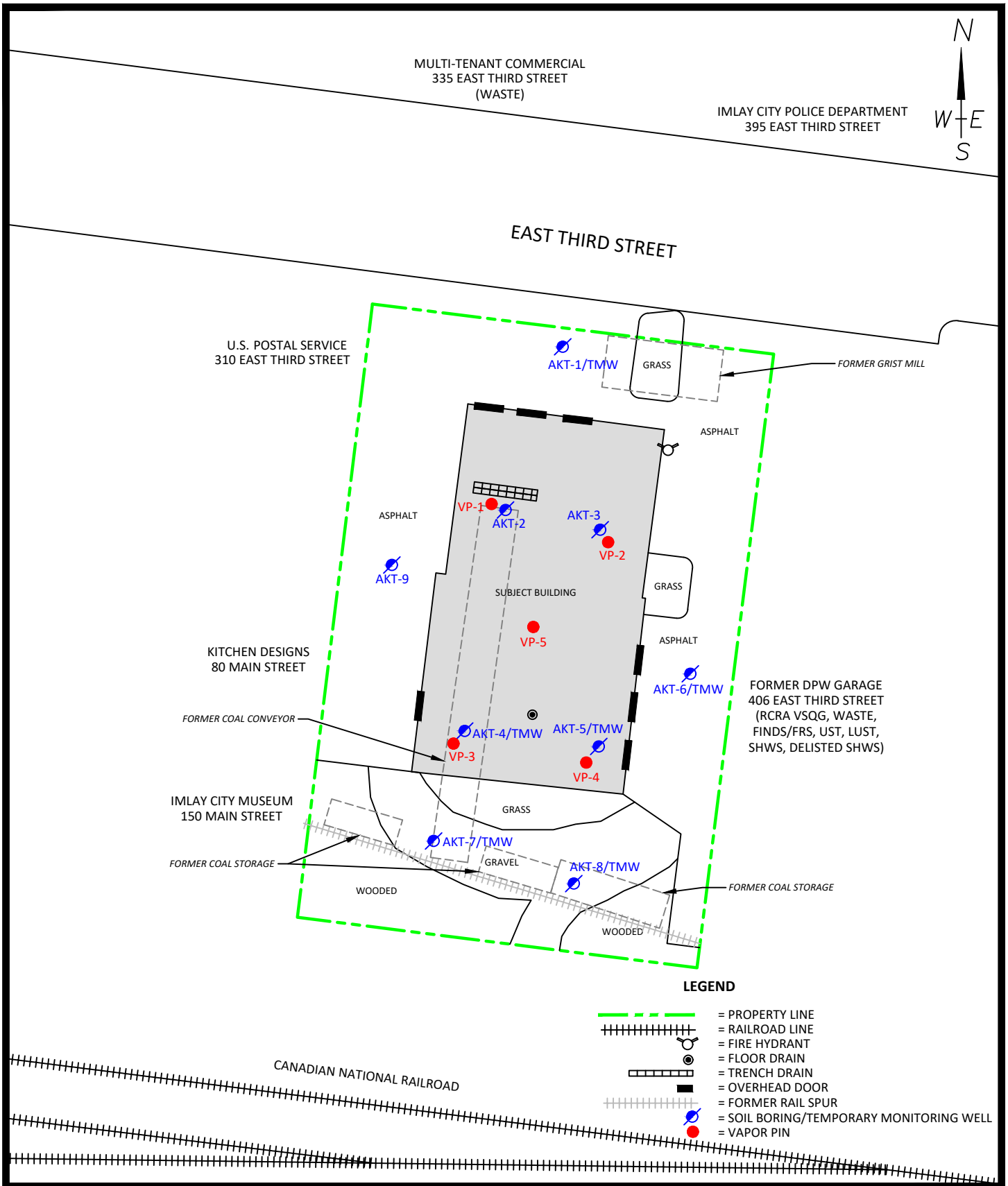
AKT PEERLESS
ENVIRONMENTAL SERVICES

TOPOGRAPHIC LOCATION MAP

338 EAST THIRD STREET
IMLAY CITY, MICHIGAN
PROJECT NUMBER: 18286s-7-20

DRAWN BY: SES
DATE: 11/02/2023

FIGURE 1



AKT PEERLESS ENVIRONMENTAL SERVICES

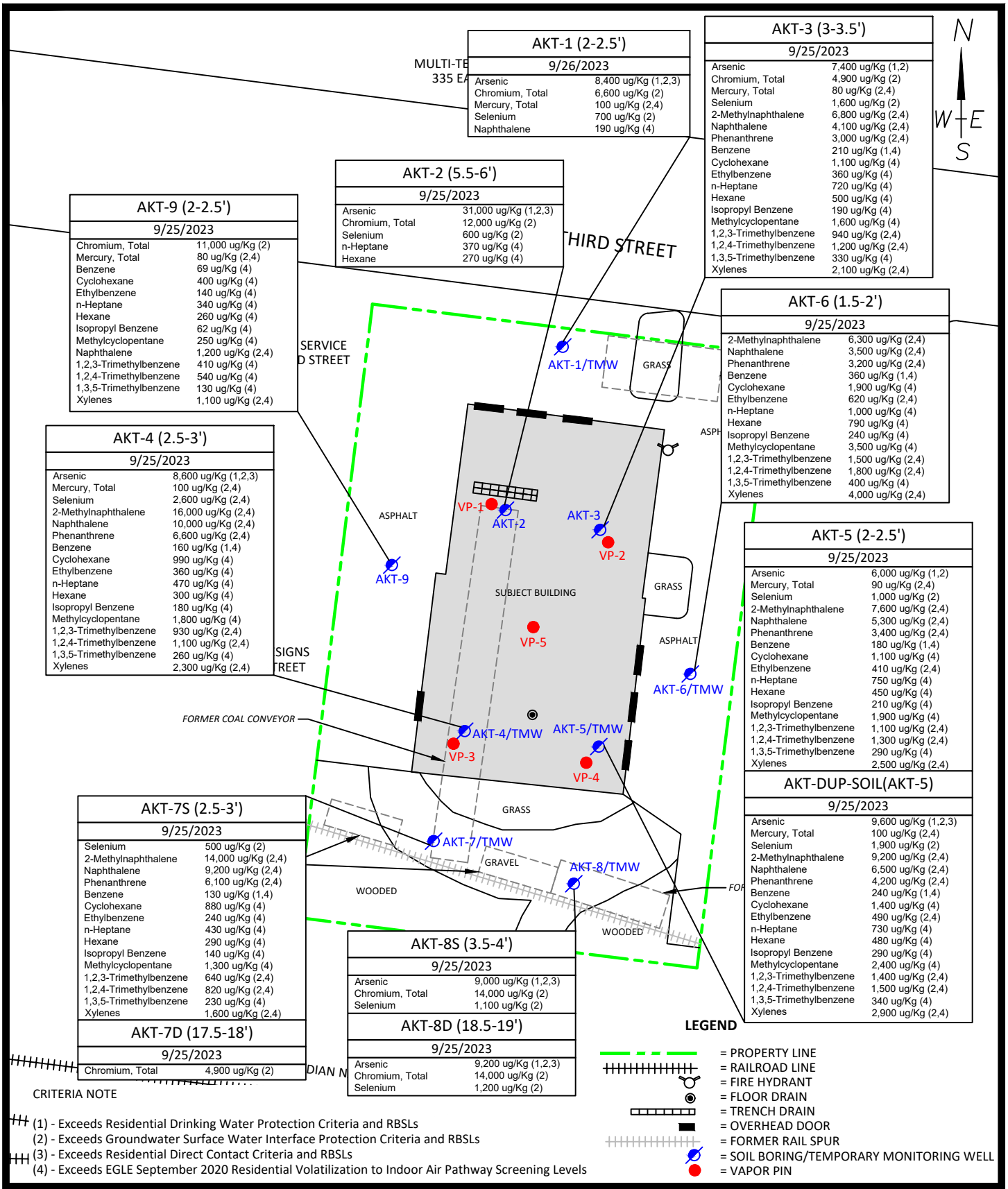
SITE MAP WITH SAMPLE LOCATIONS

338 EAST THIRD STREET
IMLAY CITY, MICHIGAN
PROJECT NUMBER: 18286s-7-20

DRAWN BY: SES
DATE: 11/02/2023

0 20 40
SCALE: 1" = 40'

FIGURE 2



AKT PEERLESS ENVIRONMENTAL SERVICES

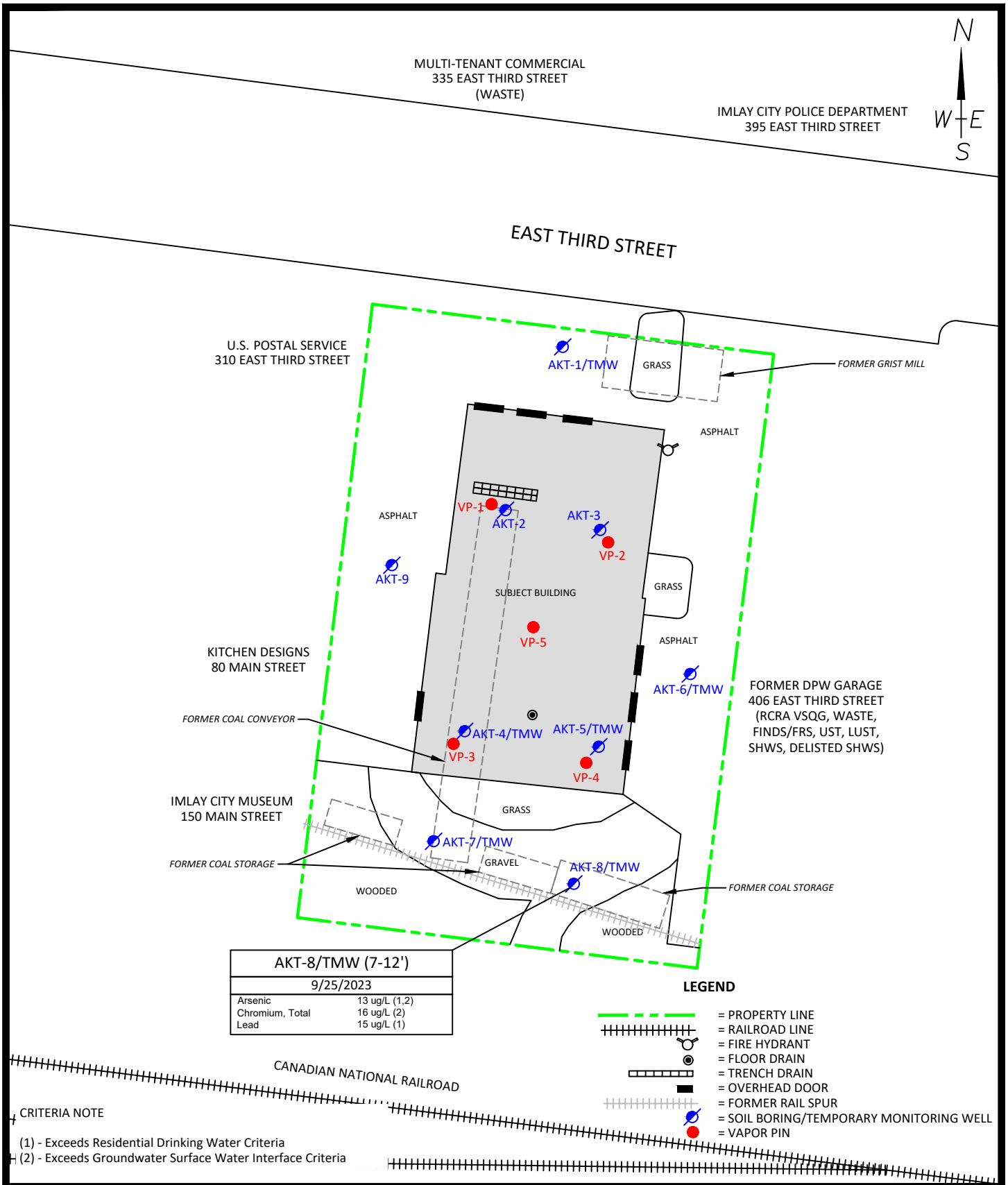
SITE MAP WITH SOIL RESULTS EXCEEDING EGLE RCC

338 EAST THIRD STREET
IMLAY CITY, MICHIGAN
PROJECT NUMBER: 18286s-7-20

DRAWN BY: SES
DATE: 11/02/2023

0 20 40
SCALE: 1" = 40'

FIGURE 3



AKT PEERLESS ENVIRONMENTAL SERVICES

SITE MAP WITH GROUNDWATER RESULTS EXCEEDING EGLE RCC

338 EAST THIRD STREET
IMLAY CITY, MICHIGAN
PROJECT NUMBER: 18286s-7-20

DRAWN BY: SES
DATE: 11/02/2023

0 20 40
SCALE: 1" = 40'

FIGURE 4

AKT PEERLESS
ENVIRONMENTAL SERVICES

TABLES

AKT PEERLESS™
ENVIRONMENTAL SERVICES

Table 1: Summary of RCC Soil Analytical Results
338 East Third Street
Imlay City, MIchigan
AKT Peerless Project No. 18286s

Parameters* *(Refer to detailed laboratory report for method reference data)*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria and RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs	Residential Finite VSIC for 5 Meter Source Thickness	Residential Finite VSIC for 2 Meter Source Thickness	Residential Particulate Soil Inhalation Criteria and RBSLs	Residential Direct Contact Criteria and RBSLs	Residential Soil Saturation Concentration Screening Levels	EGLE September 2020 Residential Volatilization to Indoor Air Pathway (VIAP) Screening Levels	Sample Location	AKT-1	AKT-2	AKT-3	AKT-4	AKT-5
													Collection Date	9/26/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023
													Depth	2.0-2.5'	5.5-6.0'	3.0-3.5'	2.5-3.0'	2.0-2.5'
Metals (ug/Kg)																		
Arsenic	7440-38-2	5,800	**4,600**	**4,600**	NLV	NLV	NLV	NLV	7.2E+5	**7,600**	NA	NA		**8,400**	**31,000**	**7,400**	**8,600**	**6,000**
Barium (B)	7440-39-3	75,000	1.3E+6	(G)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA	NA		**54,000**	**24,000**	**32,000**	**9,700**	**24,000**
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5	NA	NA		<0.2	<0.2	<0.2	<0.2	<0.2
Chromium, Total	7440-47-3	NA	30,000	**3,300**	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA	NA		**6,600**	**12,000**	**4,900**	<2.0	<2.0
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA	NA		**22,000**	**16,000**	**9,700**	**3,400**	**4,900**
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA	NA		**66,000**	**34,000**	**34,000**	**8,300**	**9,800**
Mercury, Total	7439-97-6	130	1,700	**50 (M); 1.2**	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA	**22 (M) nc**		**100**	<0.05	**80**	**100**	**90**
Selenium (B)	7782-49-2	410	4,000	**400**	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA	NA		**700**	**600**	**1,600**	**2,600**	**1,000**
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA	NA		**100**	<0.1	<0.1	<0.1	<0.1
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA	NA		**69,000**	**36,000**	**32,000**	**6,200**	**8,000**
Semivolatiles, PNAs (ug/Kg)																		
Acenaphthene	83-32-9	NA	3.0E+5	8,700	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA	200,000		<120	<110	<110	**150**	<110
Acenaphthylene	208-96-8	NA	5,900	ID	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA	DATA		<120	<110	<110	**270**	<110
Anthracene	120-12-7	NA	41,000	ID	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA	13,000,000		<120	<110	**200**	**520**	**230**
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA	160,000		**440**	**110**	**470**	**1,100**	**490**
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA	NA		**420**	<210	**370**	<2300	<2200
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA	NA		**590**	<210	**820**	<2300	<2200
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA	NA		**540**	**200**	**740**	**1,200**	**680**
Fluoranthene	206-44-0	NA	7.3E+5	5,500	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA	NA		**940**	**120**	**770**	**1,900**	**750**
Fluorene	86-73-7	NA	3.9E+5	5,300	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA	470,000		<120	<110	<110	<110	**150**
2-Methylnaphthalene	91-57-6	NA	57,000	**4,200**	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1700 nc**		<290	<270	**6,800**	**16,000**	**7,600**
Naphthalene	91-20-3	NA	35,000	**730**	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA	**67 (M) ca**		**190**	<110	**4,100**	**10,000**	**5,300**
Phenanthrene	85-01-8	NA	56,000	**2,100**	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA	**1700 nc**		**670**	**140**	**3,000**	**6,600**	**3,400**
Pyrene	129-00-0	NA	4.8E+5	ID	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA	25,000,000		**970**	**130**	**800**	**2,200**	**990**
Volatiles, VOCs (ug/Kg)																		
Acetone (I)	67-64-1	NA	15,000	34,000	2.9E+8 (C)	1.3E+8	1.3E+8	1.9E+8	3.9E+11	2.3E+7	1.1E+8	2.60E+05		<1300	<1200	**3,600**	**2,300**	<1300
Benzene (I)	71-43-2	NA	**100**	4,000 (X)	1,600	13,000	34,000	79,000	3.8E+8	1.8E+5	4.0E+5	**1.7 (M) ca**		<67	<58	**210**	**160**	**180**
2-Butanone (MEK) (I)	78-93-3	NA	2.6E+5	44,000	5.4E+7 (C)	2.9E+7	2.9E+7	3.5E+7	6.7E+10	1.2E+8 (C,DD)	2.7E+7	31,000		<330	<290	<310	<310	**480**
n-Butylbenzene	104-51-8	NA	1,600	ID	ID	ID	ID	ID	2.0E+9	2.5E+6	1.0E+7	550		<67	<58	**190**	**150**	**190**
sec-Butylbenzene	135-98-8	NA	1,600	ID	ID	ID	ID	ID	4.0E+8	2.5E+6	1.0E+7	3,800		<67	<58	**85**	<63	**73**
Cyclohexane	110-82-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**320 (M) nc**		<330	<290	**1,100**	**990**	**1,100**
Ethylbenzene (I)	100-41-4	NA	1,500	**360**	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	2.2E+7 (C)	1.4E+5	**12 (M) ca**		<67	<58	**360**	**360**	**410**
n-Heptane	142-82-5	NA	NA	4.6E+7 (C)	1.5E+06 (C)	2.10E+07	4.40E+07	1.00E+08	2.40E+11	9.9E+8 (C)	2.40E+05	**130 nc**		<67	**370**	**720**	**470**	**750**
Hexane	110-54-3	NA	180,000 (C)	NA	5.1E+5 (C)	3,000,000	3.20E+06	6.20E+06	1.30E+10	92,000,000 (C)	44,000	**25 nc**		<67	**270**	**500**	**300**	**450**
Isopropyl benzene	98-82-8	NA	91,000	3,200	4.0E+5 (C)	1.7E+6	1.7E+6	2.8E+6	5.8E+9	2.5E+7 (C)	3.9E+5	**3.8 (M) ca**		<67	<58	**190**	**180**	**210**
Methylcyclopentane (I)	96-37-7	NA	ID	NA	92,000	2.3E+6	8.2E+6	2.0E+7	4.7E+10	ID	3.5E+5	**29 (M) nc**		<67	<58	**1,600**	**1,800**	**1,900**
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1,700 nc**		<330	<290	**2,100**	**1,800**	**2,200**
Naphthalene	91-20-3	NA	35,000	**730**	2.70E+06	1.50E+06	1.50E+06	1.50E+06	6.70E+08	8.10E+06	NA	**67 (M) ca**		<330	<290	**2,100**	**2,000**	**2,300**
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	ID	ID	ID	ID	1.3E+9	2.5E+6	1.0E+7	1,800		<67	<58	**230**	**210**	**230**
Toluene (I)	108-88-3	NA	16,000	5,400	3.3E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	5.0E+7 (C)	2.5E+5	3,700		<67	<58	**1,500**	**1,000**	**1,300**
1,2,3-Trimethylbenzene (I)	526-73-8	NA	1,800	**570**	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**270 (JT) nc**		<67	<58	**940**	**930**	**1,100**
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	**570**	4.30E+06	2.10E+07	5.00E+08	5.00E+08	8.20E+10	3.20E+07	1.10E+05	**150 (JT) nc**		<67	<58	**1,200**	**1,100**	**1,300**
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**100 (JT) nc**		<67	<58	**330**	**260**	**290**
Xylenes (I)	1330-20-7	NA	5,600	**980**	6.3E+6 (C)	4.60E+07	6.10E+07	1.30E+08	2.90E+11	4.1E+8 (C)	1.50E+05	**280 (J) nc**		<130	<120	**2,100**	**2,300**	**2,500**
All Remaining VOCs	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies		BDL	BDL	BDL	BDL	BDL

AKT PEERLESS™
ENVIRONMENTAL SERVICES

Table 1: Summary of RCC Soil Analytical Results
338 East Third Street
Imlay City, MIchigan
AKT Peerless Project No. 18286s

Parameters* *(Refer to detailed laboratory report for method reference data)*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria and RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs	Residential Finite VSIC for 5 Meter Source Thickness	Residential Finite VSIC for 2 Meter Source Thickness	Residential Particulate Soil Inhalation Criteria and RBSLs	Residential Direct Contact Criteria and RBSLs	Residential Soil Saturation Concentration Screening Levels	EGLE September 2020 Residential Volatilization to Indoor Air Pathway (VIAP) Screening Levels	Sample Location	AKT-6	AKT-7S	AKT-7D	AKT-8S	AKT-8D
													Collection Date	9/25/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023
													Depth	1.5-2.0'	2.5-3.0'	17.5-18.0'	3.5-4.0'	18.5-19.0'
Metals (ug/Kg)																		
Arsenic	7440-38-2	5,800	**4,600**	**4,600**	NLV	NLV	NLV	NLV	7.2E+5	**7,600**	NA	NA		NS	**2,500**	**4,500**	**9,000**	**9,200**
Barium (B)	7440-39-3	75,000	1.3E+6	(G)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA	NA		NS	**13,000**	**9,600**	**40,000**	**38,000**
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5	NA	NA		NS	<0.2	<0.2	<0.2	<0.2
Chromium, Total	7440-47-3	NA	30,000	**3,300**	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA	NA		NS	<2.0	**4,900**	**14,000**	**14,000**
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA	NA		NS	**5,400**	**4,100**	**13,000**	**13,000**
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA	NA		NS	**23,000**	**3,500**	**6,400**	**6,300**
Mercury, Total	7439-97-6	130	1,700	**50 (M); 1.2**	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA	**22 (M) nc**		NS	<0.05	<0.06	<0.06	<0.06
Selenium (B)	7782-49-2	410	4,000	**400**	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA	NA		NS	**500**	**300**	**1,100**	**1,200**
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA	NA		NS	<0.1	<0.1	<0.1	<0.1
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA	NA		NS	**17,000**	**23,000**	**40,000**	**42,000**
Semivolatiles, PNAs (ug/Kg)																		
Acenaphthene	83-32-9	NA	3.0E+5	8,700	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA	200,000		<110	<110	<110	<110	<110
Acenaphthylene	208-96-8	NA	5,900	ID	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA	DATA		<110	<110	<110	<110	<110
Anthracene	120-12-7	NA	41,000	ID	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA	13,000,000		**230**	**390**	<110	<110	<110
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA	160,000		**630**	**1,200**	<110	<110	<110
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA	NA		<2300	<2100	<230	<230	<2300
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA	NA		<2300	<2100	<230	<230	<2300
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA	NA		**1,200**	**1,700**	<110	<110	<110
Fluoranthene	206-44-0	NA	7.3E+5	5,500	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA	NA		**1,300**	**2,400**	<110	<110	<110
Fluorene	86-73-7	NA	3.9E+5	5,300	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA	470,000		<110	**280**	<110	<110	<110
2-Methylnaphthalene	91-57-6	NA	57,000	**4,200**	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1700 nc**		**6,300**	**14,000**	<290	<280	<290
Naphthalene	91-20-3	NA	35,000	**730**	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA	**67 (M) ca**		**3,500**	**9,200**	<110	<110	<110
Phenanthrene	85-01-8	NA	56,000	**2,100**	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA	**1700 nc**		**3,200**	**6,100**	<110	<110	<110
Pyrene	129-00-0	NA	4.8E+5	ID	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA	25,000,000		**1,400**	**2,800**	<110	<110	<110
Volatiles, VOCs (ug/Kg)																		
Acetone (I)	67-64-1	NA	15,000	34,000	2.9E+8 (C)	1.3E+8	1.3E+8	1.9E+8	3.9E+11	2.3E+7	1.1E+8	2.60E+05		**3,100**	**2,900**	<1300	1,800	<1300
Benzene (I)	71-43-2	NA	**100**	4,000 (X)	1,600	13,000	34,000	79,000	3.8E+8	1.8E+5	4.0E+5	**1.7 (M) ca**		**360**	**130**	<67	<63	<64
2-Butanone (MEK) (I)	78-93-3	NA	2.6E+5	44,000	5.4E+7 (C)	2.9E+7	2.9E+7	3.5E+7	6.7E+10	1.2E+8 (C,DD)	2.7E+7	31,000		**630**	<280	<340	<320	<320
n-Butylbenzene	104-51-8	NA	1,600	ID	ID	ID	ID	ID	2.0E+9	2.5E+6	1.0E+7	550		**230**	**130**	<67	<63	<64
sec-Butylbenzene	135-98-8	NA	1,600	ID	ID	ID	ID	ID	4.0E+8	2.5E+6	1.0E+7	3,800		**75**	**58**	<67	<63	<64
Cyclohexane	110-82-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**320 (M) nc**		**1,900**	**880**	<340	<320	<320
Ethylbenzene (I)	100-41-4	NA	1,500	**360**	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	2.2E+7 (C)	1.4E+5	**12 (M) ca**		**620**	**240**	<67	<63	<64
n-Heptane	142-82-5	NA	NA	4.6E+7 (C)	1.5E+06 (C)	2.10E+07	4.40E+07	1.00E+08	2.40E+11	9.9E+8 (C)	2.40E+05	**130 nc**		**1,000**	**430**	<67	<63	<64
Hexane	110-54-3	NA	180,000 (C)	NA	5.1E+5 (C)	3,000,000	3.20E+06	6.20E+06	1.30E+10	92,000,000 (C)	44,000	**25 nc**		**790**	**290**	<67	<63	<64
Isopropyl benzene	98-82-8	NA	91,000	3,200	4.0E+5 (C)	1.7E+6	1.7E+6	2.8E+6	5.8E+9	2.5E+7 (C)	3.9E+5	**3.8 (M) ca**		**240**	**140**	<67	<63	<64
Methylcyclopentane (I)	96-37-7	NA	ID	NA	92,000	2.3E+6	8.2E+6	2.0E+7	4.7E+10	ID	3.5E+5	**29 (M) nc**		**3,500**	**1,300**	<67	<63	<64
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1,700 nc**		**2,900**	**1,600**	<340	<320	<320
Naphthalene	91-20-3	NA	35,000	**730**	2.70E+06	1.50E+06	1.50E+06	1.50E+06	6.70E+08	8.10E+06	NA	**67 (M) ca**		**3,500**	**1,600**	<340	<320	<320
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	ID	ID	ID	ID	1.3E+9	2.5E+6	1.0E+7	1,800		**300**	**160**	<67	<63	<64
Toluene (I)	108-88-3	NA	16,000	5,400	3.3E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	5.0E+7 (C)	2.5E+5	3,700		**2,500**	**950**	<67	<63	<64
1,2,3-Trimethylbenzene (I)	526-73-8	NA	1,800	**570**	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**270 (JT) nc**		**1,500**	**640**	<67	<63	<64
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	**570**	4.30E+06	2.10E+07	5.00E+08	5.00E+08	8.20E+10	3.20E+07	1.10E+05	**150 (JT) nc**		**1,800**	**820**	<67	<63	<64
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**100 (JT) nc**		**400**	**230**	<67	<63	<64
Xylenes (I)	1330-20-7	NA	5,600	**980**	6.3E+6 (C)	4.60E+07	6.10E+07	1.30E+08	2.90E+11	4.1E+8 (C)	1.50E+05	**280 (J) nc**		**4,000**	**1,600**	<130	<130	<130
All Remaining VOCs	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies		BDL	BDL	BDL	BDL	BDL

AKT PEERLESS™
ENVIRONMENTAL SERVICES

Table 1: Summary of RCC Soil Analytical Results
338 East Third Street
Imlay City, MIchigan
AKT Peerless Project No. 18286s

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria and RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs	Residential Finite VSIC for 5 Meter Source Thickness	Residential Finite VSIC for 2 Meter Source Thickness	Residential Particulate Soil Inhalation Criteria and RBSLs	Residential Direct Contact Criteria and RBSLs	Residential Soil Saturation Concentration Screening Levels	EGLE September 2020 Residential Volatilization to Indoor Air Pathway (VIAP) Screening Levels	Sample Location	AKT-9	AKT-DUP SOIL (AKT-5)	MS AKT-7D	MSD AKT-7D	METHANOL TRIP BLANK
(Refer to detailed laboratory report for method reference data)													Collection Date	9/25/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023
													Depth	2.0-2.5'	2.0-2.5'	17.5-18.0'	17.5-18.0'	NA
Metals (ug/Kg)																		
Arsenic	7440-38-2	5,800	**4,600**	**4,600**	NLV	NLV	NLV	NLV	7.2E+5	**7,600**	NA	NA		**3,300**	**9,600**	**85,000**	**89,000**	NS
Barium (B)	7440-39-3	75,000	1.3E+6	(G)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA	NA		**46,000**	**29,000**	**92,000**	**95,000**	NS
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5	NA	NA		**200**	<0.2	**8,400**	**9,600**	NS
Chromium, Total	7440-47-3	NA	30,000	**3,300**	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA	NA		**11,000**	**2,100**	**86,000**	**91,000**	NS
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA	NA		**19,000**	**6,700**	**85,000**	**89,000**	NS
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA	NA		**18,000**	**18,000**	**93,000**	**96,000**	NS
Mercury, Total	7439-97-6	130	1,700	**50 (M); 1.2**	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA	**22 (M) nc**		**80**	**100**	**500**	**500**	NS
Selenium (B)	7782-49-2	410	4,000	**400**	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA	NA		**400**	**1,900**	**88,000**	**90,000**	NS
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA	NA		<0.1	<0.1	**8,500**	**9,300**	NS
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA	NA		**26,000**	**11,000**	**110,000**	**120,000**	NS
Semivolatiles, PNAs (ug/Kg)																		
Acenaphthene	83-32-9	NA	3.0E+5	8,700	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA	200,000		<110	<110	**1,900**	**2,000**	NS
Acenaphthylene	208-96-8	NA	5,900	ID	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA	DATA		<110	<110	**2,100**	**2,100**	NS
Anthracene	120-12-7	NA	41,000	ID	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA	13,000,000		**140**	**270**	**2,000**	**2,100**	NS
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA	160,000		**540**	**590**	**2,200**	**2,100**	NS
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA	NA		<2100	<2200	**2,000**	**2,100**	NS
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA	NA		<2100	<2200	**1,900**	**2,100**	NS
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA	NA		**740**	**850**	**2,100**	**2,100**	NS
Fluoranthene	206-44-0	NA	7.3E+5	5,500	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA	NA		**1,200**	**880**	**2,000**	**2,100**	NS
Fluorene	86-73-7	NA	3.9E+5	5,300	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA	470,000		<110	**200**	**2,200**	**2,200**	NS
2-Methylnaphthalene	91-57-6	NA	57,000	**4,200**	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1700 nc**		**1,200**	**9,200**	**2,200**	**2,000**	NS
Naphthalene	91-20-3	NA	35,000	**730**	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA	**67 (M) ca**		**750**	**6,500**	**2,000**	**1,600**	NS
Phenanthrene	85-01-8	NA	56,000	**2,100**	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA	**1700 nc**		**1,200**	**4,200**	**2,000**	**2,000**	NS
Pyrene	129-00-0	NA	4.8E+5	ID	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA	25,000,000		**1,000**	**1,500**	**2,100**	**2,100**	NS
Volatiles, VOCs (ug/Kg)																		
Acetone (I)	67-64-1	NA	15,000	34,000	2.9E+8 (C)	1.3E+8	1.3E+8	1.9E+8	3.9E+11	2.3E+7	1.1E+8	2.60E+05		<1200	**3,100**	**4,500**	**4,800**	<1000
Benzene (I)	71-43-2	NA	**100**	4,000 (X)	1,600	13,000	34,000	79,000	3.8E+8	1.8E+5	4.0E+5	**1.7 (M) ca**		**69**	**240**	**3,500**	**3,400**	<50
2-Butanone (MEK) (I)	78-93-3	NA	2.6E+5	44,000	5.4E+7 (C)	2.9E+7	2.9E+7	3.5E+7	6.7E+10	1.2E+8 (C,DD)	2.7E+7	31,000		<300	<340	**3,900**	**3,800**	<250
n-Butylbenzene	104-51-8	NA	1,600	ID	ID	ID	ID	ID	2.0E+9	2.5E+6	1.0E+7	550		**70**	**240**	**3,600**	**3,800**	<50
sec-Butylbenzene	135-98-8	NA	1,600	ID	ID	ID	ID	ID	4.0E+8	2.5E+6	1.0E+7	3,800		<61	**93**	**3,500**	**3,700**	<50
Cyclohexane	110-82-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**320 (M) nc**		**400**	**1,400**	**3,700**	**3,500**	<250
Ethylbenzene (I)	100-41-4	NA	1,500	**360**	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	2.2E+7 (C)	1.4E+5	**12 (M) ca**		**140**	**490**	**3,400**	**3,600**	<50
n-Heptane	142-82-5	NA	NA	4.6E+7 (C)	1.5E+06 (C)	2.10E+07	4.40E+07	1.00E+08	2.40E+11	9.9E+8 (C)	2.40E+05	**130 nc**		**340**	**730**	**4,200**	**4,100**	<50
Hexane	110-54-3	NA	180,000 (C)	NA	5.1E+5 (C)	3,000,000	3.20E+06	6.20E+06	1.30E+10	92,000,000 (C)	44,000	**25 nc**		**260**	**480**	**3,800**	**3,500**	<50
Isopropyl benzene	98-82-8	NA	91,000	3,200	4.0E+5 (C)	1.7E+6	1.7E+6	2.8E+6	5.8E+9	2.5E+7 (C)	3.9E+5	**3.8 (M) ca**		**62**	**290**	**3,500**	**3,700**	<50
Methylcyclopentane (I)	96-37-7	NA	ID	NA	92,000	2.3E+6	8.2E+6	2.0E+7	4.7E+10	ID	3.5E+5	**29 (M) nc**		**250**	**2,400**	**3,700**	**3,500**	<50
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.7E+6	1.5E+6	1.5E+6	1.5E+6	6.7E+8	8.1E+6	NA	**1,700 nc**		**1,100**	**2,800**	**3,300**	**3,500**	<250
Naphthalene	91-20-3	NA	35,000	**730**	2.70E+06	1.50E+06	1.50E+06	1.50E+06	6.70E+08	8.10E+06	NA	**67 (M) ca**		**1,200**	**2,900**	**3,600**	**3,800**	<250
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	ID	ID	ID	ID	1.3E+9	2.5E+6	1.0E+7	1,800		**90**	**290**	**3,600**	**3,800**	<50
Toluene (I)	108-88-3	NA	16,000	5,400	3.3E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	5.0E+7 (C)	2.5E+5	3,700		**560**	**1,500**	**3,400**	**3,500**	<50
1,2,3-Trimethylbenzene (I)	526-73-8	NA	1,800	**570**	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**270 (JT) nc**		**410**	**1,400**	**3,500**	**3,600**	<50
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	**570**	4.30E+06	2.10E+07	5.00E+08	5.00E+08	8.20E+10	3.20E+07	1.10E+05	**150 (JT) nc**		**540**	**1,500**	**3,500**	**3,700**	<50
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	2.60E+06	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.20E+07	94,000	**100 (JT) nc**		**130**	**340**	**3,600**	**3,700**	<50
Xylenes (I)	1330-20-7	NA	5,600	**980**	6.3E+6 (C)	4.60E+07	6.10E+07	1.30E+08	2.90E+11	4.1E+8 (C)	1.50E+05	**280 (J) nc**		**1,100**	**2,900**	**7,100**	**7,300**	<100
All Remaining VOCs	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies		BDL	BDL	BDL	BDL	BDL

AKT PEERLESS™
ENVIRONMENTAL SERVICES

Table 2: Summary of Groundwater Analytical Results
338 East Third Street
Imlay City, Michigan
AKT Peerless Project No. 18286s

Parameters* *(Refer to detailed laboratory report for method reference data)*	Chemical Abstract Service Number	Residential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level	Residential Volatilization to Indoor Air Pathway (VIAP) Shallow Groundwater	Residential Volatilization to Indoor Air Pathway Screening Levels - Groundwater Not In Contact	Sample Location	AKT-1/TMW	AKT-4/TMW	AKT-5/TMW	AKT-6/TMW	AKT-7/TMW	AKT-8/TMW
									Collection Date	9/26/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023
									Depth	7-12'	19-24'	7-12'	8-13'	7-12'	7-12'
Metals (ug/L)															
Arsenic	7440-38-2	**10 (A)**	**10**	NLV	NA	ID	NA	NA		<2.0	**3.4**	<1.0	NS	<1.0	**13**
Barium (B)	7440-39-3	2,000 (A)	(G)	NLV	NA	ID	NA	NA		**270**	**35**	**87**	NS	**39**	**160**
Cadmium (B)	7440-43-9	5.0 (A)	(G,X)	NLV	NA	ID	NA	NA		<0.4	<0.2	<0.2	NS	<0.2	**0.6**
Chromium, Total	7440-47-3	100 (A)	**11**	NLV	NA	ID	NA	NA		<2.0	**5.9**	<1.0	NS	<1.0	**16**
Copper (B)	7440-50-8	1,000 (E)	(G)	NLV	NA	ID	NA	NA		**2.3**	**4.0**	<1.0	NS	<1.0	**15**
Lead (B)	7439-92-1	**4.0 (L)**	(G,X)	NLV	NA	ID	NA	NA		<1.0	**2.4**	<1.0	NS	<1.0	**15**
Mercury, Total	7439-97-6	**2.0 (A)**	**0.0013**	56 (S)	56	ID	**0.088 nc**	**2.5 nc**		<0.2	<0.2	<0.2	NS	<0.2	<0.2
Selenium (B)	7782-49-2	50 (A)	5.0	NLV	NA	ID	NA	NA		<4.0	**3.8**	**4.2**	NS	**2.7**	**4.2**
Silver (B)	7440-22-4	34	0.2 (M); 0.06	NLV	NA	ID	NA	NA		<0.4	<0.2	<0.2	NS	<0.2	<0.2
Zinc (B)	7440-66-6	2,400	(G)	NLV	NA	ID	NA	NA		<10	**16**	<5.0	NS	<5.0	**68**
Semivolatiles, PNAs (ug/L)															
All PNAs	Varies	Varies	Varies	Varies	Varies	ID	Varies	Varies		BDL	BDL	BDL	BDL	BDL	BDL
Volatiles (ug/L)															
All VOCs	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies		BDL	BDL	BDL	BDL	BDL	BDL
PFAS (ug/L)															
6:2FTS	27619-97-2	NA	NA	NA	NA	NA	NA	NA		NS	**0.0043**	NS	NS	NS	<2.0
PFBA	375-22-4	NA	NA	NA	NA	NA	NA	NA		NS	**0.0049**	NS	NS	NS	**0.0054**
PFPeA	2706-90-3	NA	NA	NA	NA	NA	NA	NA		NS	**0.0033**	NS	NS	NS	<2.0
All Remaining PFASs	Varies	Varies	Varies	Varies	Varies	Varies	NA	NA		NS	**BDL**	NS	NS	NS	**BDL**

AKT PEERLESS™
ENVIRONMENTAL SERVICES

Table 2: Summary of Groundwater Analytical Results
338 East Third Street
Imlay City, Michigan
AKT Peerless Project No. 18286s

Parameters* *(Refer to detailed laboratory report for method reference data)*	Chemical Abstract Service Number	Residential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level	Residential Volatilization to Indoor Air Pathway (VIAP) Shallow Groundwater	Residential Volatilization to Indoor Air Pathway Screening Levels - Groundwater Not In Contact	Sample Location	AKT-DUP W	MS AKT-5/TMW	MSD AKT-5/TMW	EQ BLANK	TRIP BLANK
									Collection Date	9/25/2023	9/25/2023	9/25/2023	9/25/2023	9/25/2023
									Depth	19-24'	7-12'	7-12'	NA	NA
Metals (ug/L)														
Arsenic	7440-38-2	**10 (A)**	**10**	NLV	NA	ID	NA	NA		**1.6**	**52**	**52**	<1.0	NS
Barium (B)	7440-39-3	2,000 (A)	(G)	NLV	NA	ID	NA	NA		**46**	**150**	**150**	<5.0	NS
Cadmium (B)	7440-43-9	5.0 (A)	(G,X)	NLV	NA	ID	NA	NA		<0.2	**46**	**47**	<0.2	NS
Chromium, Total	7440-47-3	100 (A)	**11**	NLV	NA	ID	NA	NA		**2.3**	**52**	**50**	<1.0	NS
Copper (B)	7440-50-8	1,000 (E)	(G)	NLV	NA	ID	NA	NA		**1.8**	**41**	**41**	<1.0	NS
Lead (B)	7439-92-1	**4.0 (L)**	(G,X)	NLV	NA	ID	NA	NA		**1.3**	**43**	**42**	<1.0	NS
Mercury, Total	7439-97-6	**2.0 (A)**	**0.0013**	56 (S)	56	ID	**0.088 nc**	**2.5 nc**		<0.2	**4.0**	**3.9**	<0.2	NS
Selenium (B)	7782-49-2	50 (A)	5.0	NLV	NA	ID	NA	NA		**2.9**	**49**	**50**	<1.0	NS
Silver (B)	7440-22-4	34	0.2 (M); 0.06	NLV	NA	ID	NA	NA		<0.2	**43**	**43**	<0.2	NS
Zinc (B)	7440-66-6	2,400	(G)	NLV	NA	ID	NA	NA		**8.8**	**40**	**41**	<5.0	NS
Semivolatiles, PNAs (ug/L)														
All PNAs	Varies	Varies	Varies	Varies	Varies	ID	Varies	Varies		BDL	BDL	BDL	BDL	NS
Volatiles (ug/L)														
All VOCs	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies		BDL	BDL	BDL	BDL	NS
PFAS (ug/L)														
6:2FTS	27619-97-2	NA	NA	NA	NA	NA	NA	NA		NS	NS	NS	<2.0	<2.0
PFBA	375-22-4	NA	NA	NA	NA	NA	NA	NA		NS	NS	NS	<4.0	<4.0
PFPeA	2706-90-3	NA	NA	NA	NA	NA	NA	NA		NS	NS	NS	<2.0	<2.0
All Remaining PFASs	Varies	Varies	Varies	Varies	Varies	Varies	NA	NA		NS	NS	NS	**BDL**	**BDL**

AKT PEERLESS ENVIRONMENTAL SERVICES

Table 3: Summary of Soil Gas Analytical Results
338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No. 18286s-7-20

Hazardous Substance (a)	Chemical Abstract Service Number	EGLE September 2020 Residential Volatilization to Indoor Air Pathway Screening Levels	Sample Location	VP-1	VP-2	VP-3	VP-4	VP-DUP	Field Spike
			Collection Date	9/26/2023	9/26/2023	9/26/2023	9/26/2023	9/26/2023	9/26/2023
**(Refer to detailed laboratory report for method reference data)*			Depth	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab
Chemicals of Concern, ug/m3									
Mercury (Total)	Varies	10 nc		<0.50	<0.50	<0.50	<0.50	<0.50	<0.002
Polynuclear Aromatic Hydrocarbons - PNAs									
All PNA compounds	Varies	Varies		BDL	BDL	BDL	BDL	BDL	Varies
VOCs - Chemicals of Concern, ug/m3									
Bromofluorobenzene	460-00-4	NA		**143**	**146**	**144**	**145**	**144**	NA
1,1,1-Trichloroethane	71-55-6	170,000 (EE)		BDL	BDL	BDL	**9.2**	BDL	NA
1,2,3-Trimethylbenzene	526-73-8	2,100 (JT)		BDL	BDL	BDL	**7.5**	BDL	NA
1,2,4-Trimethylbenzene	95-63-6	2,100 (JT)		**4.3**	BDL	**3.6**	**29**	BDL	NA
1,3,5-Trimethylbenzene	108-67-8	2,100 (JT)		**3.4**	BDL	BDL	**12**	BDL	NA
2,2,4-Trimethylpentane	540-84-1	120,000		BDL	BDL	**7.8**	BDL	BDL	NA
2-Butanone (MEK)	78-93-3	170,000 (DD)		BDL	BDL	BDL	**250**	BDL	NA
4-Methyl-2-pentanone (MIBK)	108-10-1	27,000		BDL	BDL	**4.7**	**38**	BDL	NA
Acetone	67-64-1	1,000,000 (EE)		BDL	BDL	**120**	**4,100**	BDL	NA
Benzene	71-43-2	110		BDL	BDL	**4.3**	**44**	BDL	NA
Bromomethane	74-83-9	350		BDL	BDL	BDL	**10**	BDL	NA
Carbon disulfide	75-15-0	24,000		BDL	BDL	BDL	**13**	BDL	NA
Chloromethane	74-87-3	3,100		**0.80**	**0.68**	**2.0**	**650**	**1.2**	NA
Cyclohexane	110-82-7	210,000		BDL	BDL	**4.0**	**84**	BDL	NA
Dichlorodifluoromethane	75-71-8	11,000		**2.5**	**2.4**	**2.5**	**12**	**2.3**	NA
Ethanol	64-17-5	630,000 (EE)		**62**	**57**	**220**	**1,500**	BDL	NA
Ethylbenzene	100-41-4	340		BDL	BDL	**4.7**	**31**	BDL	NA
Hexane	110-54-3	24,000		BDL	BDL	**7.8**	**120**	BDL	NA
Methylcyclopentane	96-37-7	24,000		BDL	BDL	**8.1**	**110**	BDL	NA
Methylene chloride	75-09-2	21,000		BDL	BDL	**1.5**	BDL	BDL	NA
n-Heptane	142-82-5	120,000		BDL	BDL	**4.5**	**55**	BDL	NA
Pentane	109-66-0	35,000		BDL	BDL	**15**	**270**	BDL	NA
Tetrachloroethylene	127-18-4	1,400 (EE)		**49**	**6.7**	**7.3**	**100**	**3.6**	NA
Tetrahydrofuran	109-99-9	70,000		**1.3**	**0.90**	**2.3**	**5.2**	ND	NA
Toluene	108-88-3	170,000		**3.4**	**2.5**	**26**	**140**	**1.7**	NA
Trichlorofluoromethane	75-69-4	15,000		BDL	BDL	**4.2**	**9.3**	BDL	NA
Xylenes	1330-20-7	7,600 (J)		**8.3**	**1.9**	**17**	**120**	**1.6**	NA
All remaining VOC compounds	Varies	Varies		BDL	BDL	BDL	BDL	BDL	NA

Footnotes:

(nc) - non-carcinogenetic

(dd) - Hazardous substances cause development effects.

(ee) - The acceptable air concentration for the volatile hazardous substances is not derived using standard equation. The hazardous substance may cause adverse human health effects for less than chronic exposures.

(j) - Hazardous substance may be present in several isomer forms.
Isomer-specific concentrations must be added together for comparison to criteria

(jt) - Hazardous substance may be present in several isomer forms. The VIAP screening level may be used for the individual isomer provided that it is the sole isomer detected; however, when multiple isomers are detected in a medium, the isomer-specific concentrations just be added together and comparted to the most restrictive VIAP screen ng level of the detected isomers.

ID - means "insufficient data" to develop a criterion
NC - No established screening levels or criteria

BDL - below detection limit
NA - not applicable
Bold indicates compound exceeds detection limit

Highlighted cell indicates compound exceeds screening level

AKTPEERLESS ENVIRONMENTAL SERVICES

R 299.49 FOOTNOTES FOR GENERIC CLEANUP CRITERIA TABLES

Cleanup Criteria Requirements for Response Activity (formerly the Part 201 Generic Cleanup Criteria and Screening Levels)

(as last revised by EGLE on December 21, 2020)

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

(B) Background, as defined in R 299.1(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) The criterion developed under R 299.20 to R 299.26 exceeds the chemical-specific soil saturation screening level (Csat). The person proposing or implementing response activity shall document whether additional response activity is required to control free-phase liquids or NAPL to protect against risks associated with free-phase liquids by using methods appropriate for the free-phase liquids present. Development of a site-specific Csat or methods presented in R 299.22, R 299.24(5), and R 299.26(8) may be conducted for the relevant exposure pathways.

(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value [as provided in the table in Footnote (E) in R 299.49].

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO3/L, use 400 mg CaCO3/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote [See table in Footnote (G) in R 299.49].

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(9) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable concentrations of site-specific soil and drinking water concentrations are presented in the [See table in Footnote (L) in R 299.49].

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 µg/kg.

(O) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 µg/kg.

(P) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 µg/kg.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable. [See table in Footnote (T) in R 299.49].

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) and 20120b of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the [table in Footnote (X) in R 299.49], except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in [the table in Footnote (G) in R 299.49]. Soil protection criteria based on the HDV shall be as listed in the [table in Footnote (X) in R 299.49], except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the [table in Footnote (X) in R 299.49], except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

(Y) Source size modifiers shown in the [See table in Footnote (Y) in R 299.49] shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion. See Footnote (C) [in R 299.49].

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Use 10,000 ug/L where groundwater enters a structure through the use of a water well, sump or other device. Use 28,000 ug/L for all other uses.

(BB) The state drinking water standard for asbestos (fibers greater than 10 micrometers in length) is in units of a million fibers per liter of water (MFL). Soil concentrations of asbestos are determined by polarized light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the [table in Footnote (CC) in R 299.49], taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975). The generic approach for estimating NH_3 assumes a default pH of 8 and default temperatures of 68 °F and 85 °F for cold water and warm water surface water, respectively. The resulting NH_3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH_3-N) concentration in the groundwater and the resulting NH_3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the [table in Footnote (CC) in R 299.49], a lower percent unionized ammonia concentration for comparison to the generic GSI.

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

(DD) Hazardous substance causes developmental effects. Residential direct contact criteria are protective of both prenatal and postnatal exposure. Nonresidential direct contact criteria are protective for a pregnant adult receptor.

(EE) The [values listed in the table in Footnote (EE) in 299.49] are applicable generic GSI criteria as required by Section 20120e of the NREPA.

(FF) The chloride GSI criterion shall be 125 mg/L when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/L when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and nonresidential land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m^3.

(HH) The residential criterion for sodium is 230,000 ug/L in accordance with the Sodium Advisory Council recommendation and revised Groundwater Discharge Standards.

(II) The residential drinking water criterion for 1,4-dioxane is not calculated using the equations of R 299.10 or the toxicological and chemical-physical data as shown in Table 4 of R 299.50. The drinking water criterion is calculated using the United States Environmental Protection Agency's (U.S. EPA) "Toxicological Review of 1,4-Dioxane" EPA/635/R-11/003F, September 2013, and the department's residential exposure algorithms to protect both children and adults from unsafe levels of the chemical.

ID Insufficient data to develop criterion.

NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.

NLL Hazardous substance is not likely to leach under most soil conditions.

NLV Hazardous substance is not likely to volatilize under most conditions.

ug/kg Micrograms per kilogram

ug/L Micrograms per liter

NS Not sampled

BDL Below Laboratory Method Detection Limits

BOLD Exceeds highlighted criteria.

Appendix A

Soil Boring, Low Flow, and Soil Gas Logs

AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

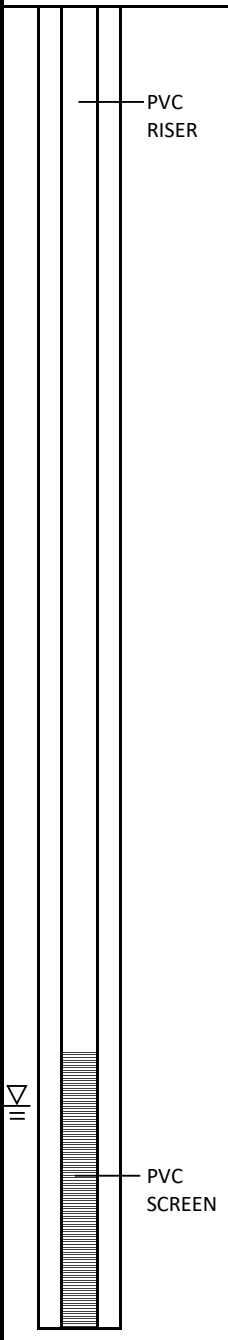
AKT-1/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	67 degress, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/26/23	DEPTH TO GW:	20'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	19-24'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
						CONCRETE	
2		99%	<0.1	SM	Black/ dark brown	**SAND -** fine grain, with coal and slag debris	M
4				ML	Brown	**SANDY CLAY -** low stiffness, with gravel	M
6		99%	<0.1				
8							
10		99%	<0.1	CL	Brown	**CLAY -** medium stiffness, with gravel	M
12							
14		99%	<0.1				
16							
18		99%	<0.1	SP	Brown	**SAND -** fine to medium grain, trace gravel	M
20							S
22		99%	<0.1				
24				SM	Brown	**SAND -** fine grain	S
						End of Boring	

TEMPORARY WELL DIAGRAM



AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

AKT-2

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/25/23	DEPTH TO GW:	N/A
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
						CONCRETE		
2		99%	<0.1	SM	Dark brown /black	**SAND -** fine grain, with coal and slag debris	D	
4			<0.1					
6		99%	1.0					
			<0.1					
8				CH	Dark brown	**CLAY -** low to medium stiffness	M	
10		99%	<0.1					
12								
14		99%	<0.1					
16								
18		99%	<0.1	CH	Gray	**CLAY -** low to medium stiffness	M	
20								
22		99%	<0.1					
24						**End of Boring**		

AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

AKT-3

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	20'
DATE DRILLED:	09/25/23	DEPTH TO GW:	N/A
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
						CONCRETE		
				SM	Light brown	**SAND -** fine grain	D	
2		99%	<0.1	SM	Dark brown /black	**SAND -** fine grain, with coal and slag debris	D	
4								
6		99%	<0.1 3 <0.1					
				SM	Brown	**SAND -** fine grain	D	
8				CH	Brown/ gray	**CLAY -** low to medium stiffness, trace gravel	M	
10		99%	<0.1					
12								
14		99%	<0.1					
16								
18		99%	<0.1					
20						**End of Boring**		

AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

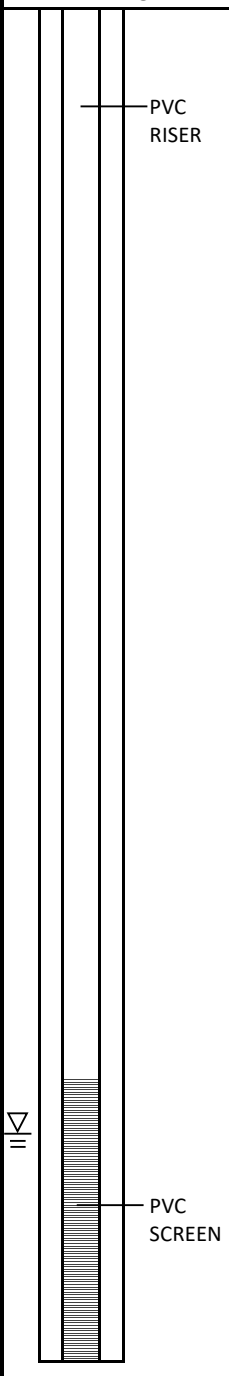
AKT-4/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/25/23	DEPTH TO GW:	20'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	19-24'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
						CONCRETE	
				SM	Light brown	**SAND -** fine grain	D
2		99%	<0.1	SM	Black	**SAND -** fine grain, with coal and slag debris	D
				CH	Brown	**CLAY -** low to medium stiffness, trace gravel	M
4							
6		99%	<0.1				
8							
10		99%	<0.1				
12							
14		99%	<0.1	SM	Brown	**SAND -** fine grain	M
16				CH	Brown	**CLAY -** low to medium stiffness	M
18		99%	<0.1	SM	Brown	**SAND -** fine grain	M
20							S
22		99%	<0.1				
24						**End of Boring**	

TEMPORARY WELL DIAGRAM



AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

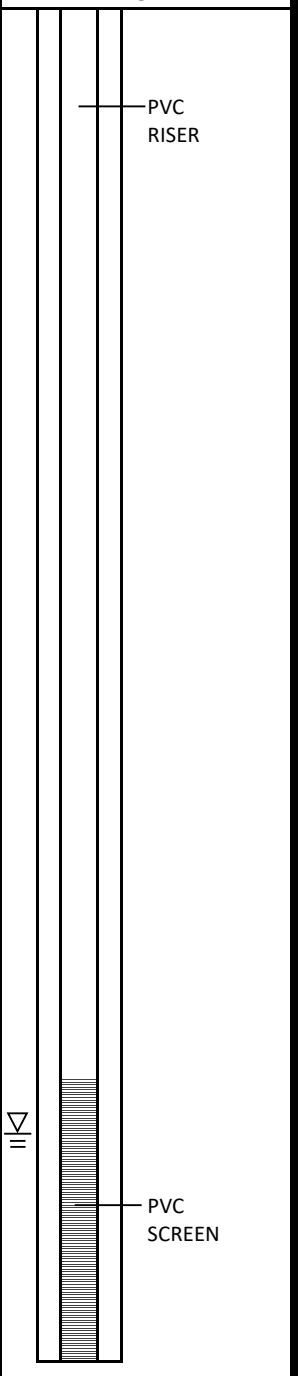
338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

AKT-5/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/25/23	DEPTH TO GW:	20'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	19-24'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
						CONCRETE	
				SM	Light brown	**SAND -** fine grain	D
2		99%	<0.1	SP	Dark brown /black	**SAND -** fine to medium grain, with coal and slag debris	D
4				SM	Brown	**SAND -** fine grain	D
6		99%	<0.1				
				ML	Brown	**SANDY CLAY -** low stiffness	M
8				CL	Brown	**CLAY -** low to high stiffness, with gravel	M
10		99%	<0.1				
12							
14		99%	<0.1				
16							
18		99%	<0.1				
				SW	Brown	**SAND -** medium grain	M
20							S
22		99%	<0.1				
24						**End of Boring**	



TEMPORARY WELL DIAGRAM

AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

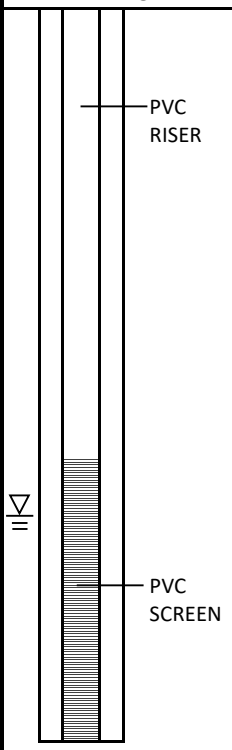
AKT-6/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	67 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	16'
DATE DRILLED:	09/26/23	DEPTH TO GW:	9.0'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	8-13'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
						CONCRETE	
				SW	Light brown	**SAND -** medium grain	D
2		99%	<0.1	SM	Black/ brown	**SAND -** fine grain, with coal and slag debris	D
4				SM	Dark brown	**SAND -** fine grain, with slag debris	D
6		99%	<0.1				
8				CH	Gray	**CLAY -** low stiffness, trace gravel	M
				SM	Brown	**SAND -** fine grain, with gravel	S
10		99%	<0.1	ML	Gray	**SANDY CLAY -** low stiffness	M
12				SM	Gray	**SAND -** fine grain	S
14		99%	<0.1	CH	Gray	**CLAY -** low stiffness, with gravel	M
16						**End of Boring**	
18							
20							

TEMPORARY WELL DIAGRAM



AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

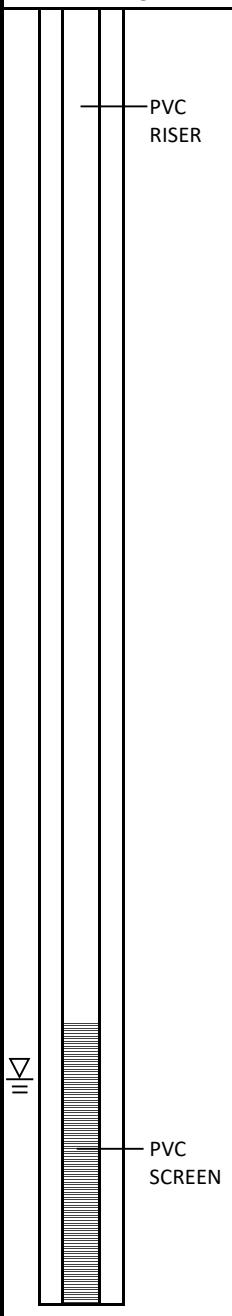
AKT-7/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/25/23	DEPTH TO GW:	19'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	18-23'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
					Gray	**GRAVEL**	
2		99%	<0.1	SW	Dark brown /black	**SAND -** medium grain, with coal and slag debris	D
4				CH	Brown	**CLAY -** low stiffness, trace gravel	D
6		99%	<0.1	SM	Light brown	**SAND -** fine grain	M
8							
10		99%	<0.1				
12							
14		99%	<0.1				
16							
18		99%	<0.1				S
20							
22		99%	<0.1				
24						**End of Boring**	

TEMPORARY WELL DIAGRAM



AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

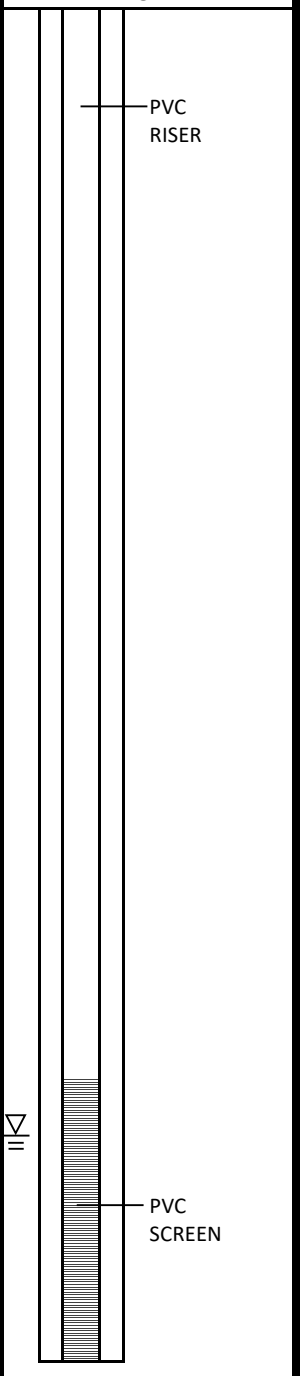
AKT-8/TMW

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	24'
DATE DRILLED:	09/25/23	DEPTH TO GW:	20'
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	19-24'
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
					Gray	**GRAVEL**	D
2		99%	<0.1	SW	Dark brown /black	**SAND -** medium grain, with coal and slag debris	D
4				CH	Brown	**CLAY -** low stiffness, trace gravel	M
6		99%	<0.1				
8							
10		99%	<0.1	SM	Light brown	**SAND -** fine grain	M
12							
14		99%	<0.1				
16							
18		99%	<0.1				
20							S
22		99%	<0.1				
24						**End of Boring**	

TEMPORARY WELL DIAGRAM



AKT PEERLESS ENVIRONMENTAL SERVICES

BORING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

AKT-9

Drawn By: KKN
Date: 10/2/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Bill Fox	BORING DEPTH:	8'
DATE DRILLED:	09/25/23	DEPTH TO GW:	N/A
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	Kammie Niswander	SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
						ASPHALT		
2		99%	<0.1	SW	Dark brown /black	**SAND -** medium grain, with coal and slag debris	D	
4				CH	Brown	**CLAY -** low stiffness, trace gravel	M	
6		99%	<0.1					
8						**End of Boring**		
10								
12								
14								
16								
18								
20								

AKT PEERLESS ENVIRONMENTAL SERVICES	**LOW-FLOW SAMPLING LOG** 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	**AKT-1/TMW**

WEATHER:	67 °F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	19.50'
TECHNICIAN:	KKN	WELL SCREEN INTERVAL (FEET BGS):	19-24'
PURGING START TIME:	1:43pm	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	2:16pm	SAMPLE COLLECTION DATE:	9/26/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0	7.11	14.82	19.9	3.54	63.9	106.6
3	7.15	15.15	216.0	3.98	63.7	64.0
6	7.16	15.71	121.0	4.51	63.5	26.8
9	7.17	15.78	87.4	4.47	63.5	1.2
12	7.17	15.77	84.4	4.35	63.5	-9.9
15	7.17	15.74	64.5	4.42	63.5	-16.4
18	7.17	15.40	43.6	5.00	63.7	-21.6
21	7.17	15.66	32.1	4.92	63.5	-24.7
24	7.17	15.61	27.2	4.95	63.7	-29.1
27	7.17	15.59	26.8	4.95	63.7	-28.8
30	7.17	15.50	26.1	4.91	63.7	-28.3
33	7.17	15.5	25.9	4.92	63.7	-28.4
36						
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed
F - Fahrenheit
mV - Millivolts
NTU - Nephelometric Turbidity Units
mg/L - Milligrams per liter

AKT PEERLESS ENVIRONMENTAL SERVICES

LOW-FLOW SAMPLING LOG

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

AKT-4/TMW

WEATHER:	65°F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	20.00'
TECHNICIAN:	KAS	WELL SCREEN INTERVAL (FEET BGS):	19-24'
PURGING START TIME:	10:55am	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	11:31am	SAMPLE COLLECTION DATE:	9/25/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0	7.45	1.25	Overrange	0.45	61.5	75
3	7.45	1.22	Overrange	0.32	61.5	56.8
6	7.43	1.19	Overrange	0.33	62.6	-84.5
9	7.37	1.23	Overrange	1.03	62.4	-83.5
12	7.32	1.27	Overrange	2.02	62.1	-73.1
15	7.32	1.28	Overrange	1.75	62.1	-67.6
18	7.32	1.26	Overrange	2.02	63.1	-63.4
21	7.33	1.27	Overrange	2.00	63.5	-63.6
24	7.32	1.26	Overrange	2.58	63.5	-60.9
27	7.33	1.22	404	4.06	61.9	-57.3
30	7.32	1.21	233	4.05	61.3	-50.8
33	7.32	1.19	219	4.06	62.1	-48.9
36	7.33	1.19	222	4.01	61.9	-47.3
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed
NTU - Nephelometric Turbidity Units
F - Fahrenheit
mg/L - Milligrams per liter
mV - Millivolts

AKT PEERLESS ENVIRONMENTAL SERVICES	**LOW-FLOW SAMPLING LOG** 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	**AKT-5/TMW**

WEATHER:	65°F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	20.00'
TECHNICIAN:	KAS	WELL SCREEN INTERVAL (FEET BGS):	19-24'
PURGING START TIME:	12.00pm	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	12:21pm	SAMPLE COLLECTION DATE:	9/25/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0	7.16	1.77	70.0	3.20	61.3	17.5
3	7.16	1.76	64.1	3.32	61.3	18.9
6	7.15	1.75	33.3	4.51	61.2	17.0
9	7.15	1.76	16.2	5.92	61.0	18.3
12	7.15	1.75	10.8	6.03	61.2	18.9
15	7.14	1.76	8.11	6.03	61.3	20.3
18	7.14	1.76	8.49	6.04	61.2	21.0
21	7.14	1.76	8.12	6.05	61.2	21.8
24						
27						
30						
33						
36						
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed
F - Fahrenheit
mV - Millivolts
NTU - Nephelometric Turbidity Units
mg/L - Milligrams per liter

AKT PEERLESS ENVIRONMENTAL SERVICES	**LOW-FLOW SAMPLING LOG** 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	**AKT-6/TMW**

WEATHER:	65°F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	8.50'
TECHNICIAN:	KKN	WELL SCREEN INTERVAL (FEET BGS):	8-13'
PURGING START TIME:	12:50pm	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	Ran dry	SAMPLE COLLECTION DATE:	9/26/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0						
3						
6						
9						
12						
15						
18						
21						
24						
27						
30	**Ran dry while purging well and could not low flow**					
33						
36						
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed
F - Fahrenheit
mV - Millivolts
NTU - Nephelometric Turbidity Units
mg/L - Milligrams per liter

AKT PEERLESS ENVIRONMENTAL SERVICES	**LOW-FLOW SAMPLING LOG** 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	**AKT-7/TMW**

WEATHER:	70°F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	18.00'
TECHNICIAN:	KAS	WELL SCREEN INTERVAL (FEET BGS):	18-23'
PURGING START TIME:	2:40pm	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	3:04pm	SAMPLE COLLECTION DATE:	9/25/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0	7.32	1.10	556.0	3.85	63.7	65.8
3	7.34	0.92	450.0	3.85	63.7	55
6	7.32	0.89	393.0	3.83	63.7	50.3
9	7.29	0.85	49.6	3.89	62.6	-39.2
12	7.28	0.84	35.1	3.79	62.6	-38.2
15	7.27	0.84	28.4	3.63	62.4	-36.7
18	7.26	0.84	34.6	3.86	62.6	-36.5
21	7.26	0.83	34.7	3.75	62.4	-36.7
24	7.26	0.83	30.9	3.67	62.8	-36.8
27						
30						
33						
36						
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed
F - Fahrenheit
mV - Millivolts
NTU - Nephelometric Turbidity Units
mg/L - Milligrams per liter

AKT PEERLESS ENVIRONMENTAL SERVICES	**LOW-FLOW SAMPLING LOG** 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	**AKT-8/TMW**

WEATHER:	70°F, cloudy	INITIAL STATIC WATER LEVEL (0.01 FEET):	19.00'
TECHNICIAN:	KKN/KAS	WELL SCREEN INTERVAL (FEET BGS):	19-24'
PURGING START TIME:	1:28pm	WELL SCREEN DIAMETER (INCHES):	1"
STABILIZATION TIME:	2:04pm	SAMPLE COLLECTION DATE:	9/25/2023

Time	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature	ORP/eh
(Minutes)	(units)	(mS/cm^3)	(NTU)	(mg/L)	(degrees F)	(mV)
0	7.23	1.71	Overrange	3.31	63.7	58.7
3	7.21	2.46	Overrange	2.43	63.1	36.4
6	7.22	2.44	Overrange	2.13	63.3	14.6
9	7.23	2.48	Overrange	2.13	63.5	3.2
12	7.23	2.51	861.0	2.12	63.5	-13.9
15	7.23	2.52	593.0	1.97	63.3	-25.2
18	7.23	2.47	491.0	2.30	63.3	-28.6
21	7.22	2.48	957.0	2.13	63.0	-36.9
24	7.22	2.60	602.0	1.91	63.3	-39.1
27	7.21	2.72	507.0	1.99	63.5	-40.6
30	7.22	2.65	377.0	2.08	62.1	-44
33	7.22	2.56	477	2.04	62.2	-48.3
36	7.22	2.50	393	2.07	62.2	-51
39						
42						
45						
48						
51						
54						
57						
60						

Notes:

mS/cm^3 - miliSiemens per centimeter cubed

NTU - Nephelometric Turbidity Units

F - Fahrenheit

mg/L - Milligrams per liter

mV - Millivolts

AKTPEERLESS

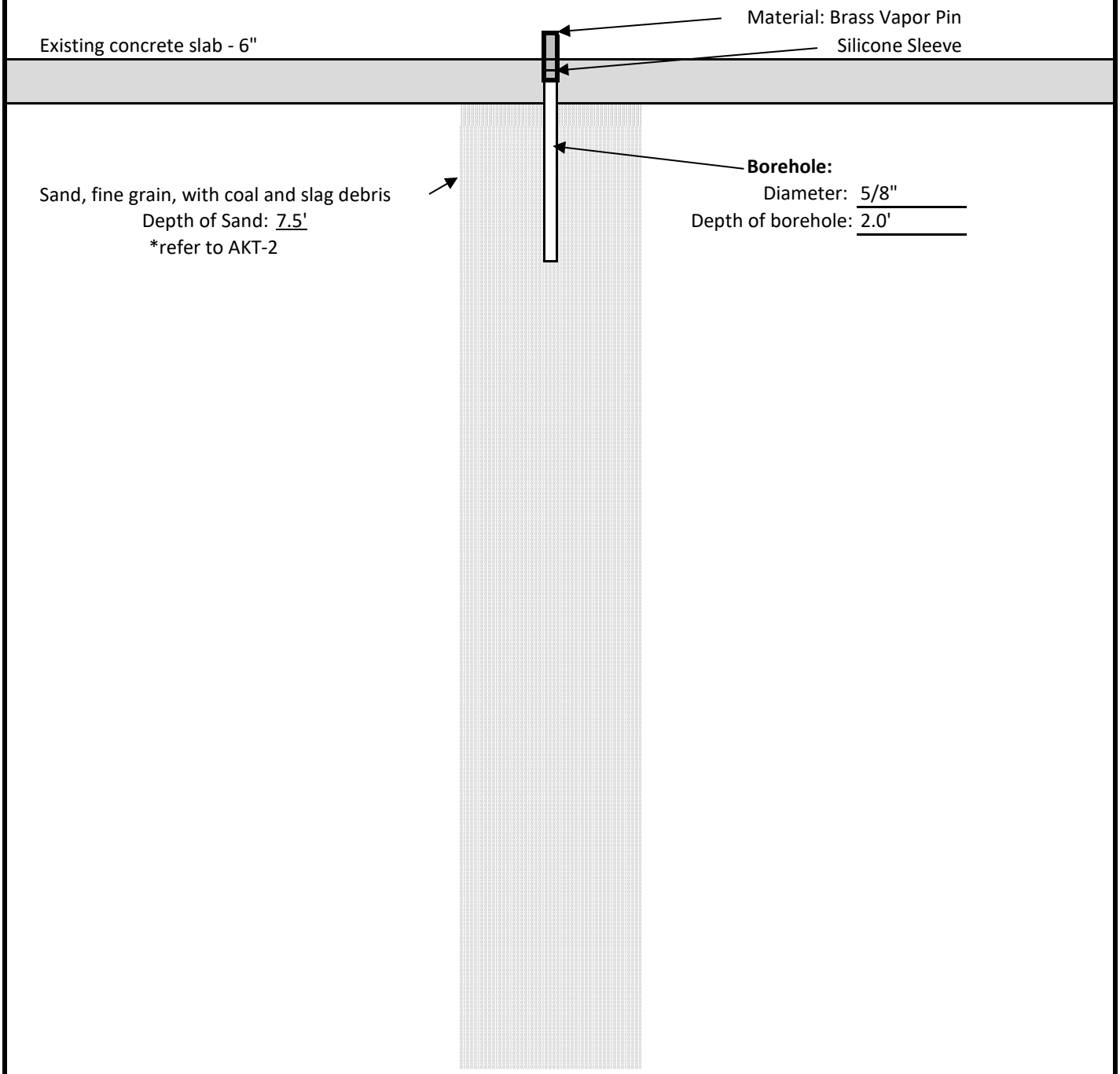
SUB-SLAB VAPOR PIN DIAGRAM

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

VP-1

Drawn by: KAS
Date: 11/16/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Kelly Streich	BOREHOLE DEPTH:	2'
DATE DRILLED:	9/25/2023	DEPTH TO GW:	N/A
DRILLING METHOD:	Hammer Drill	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	KKN	SCREEN MATERIAL:	N/A



NOT TO SCALE
DEPTHS REFERENCED FROM GROUND SURFACE

AKTPEERLESS

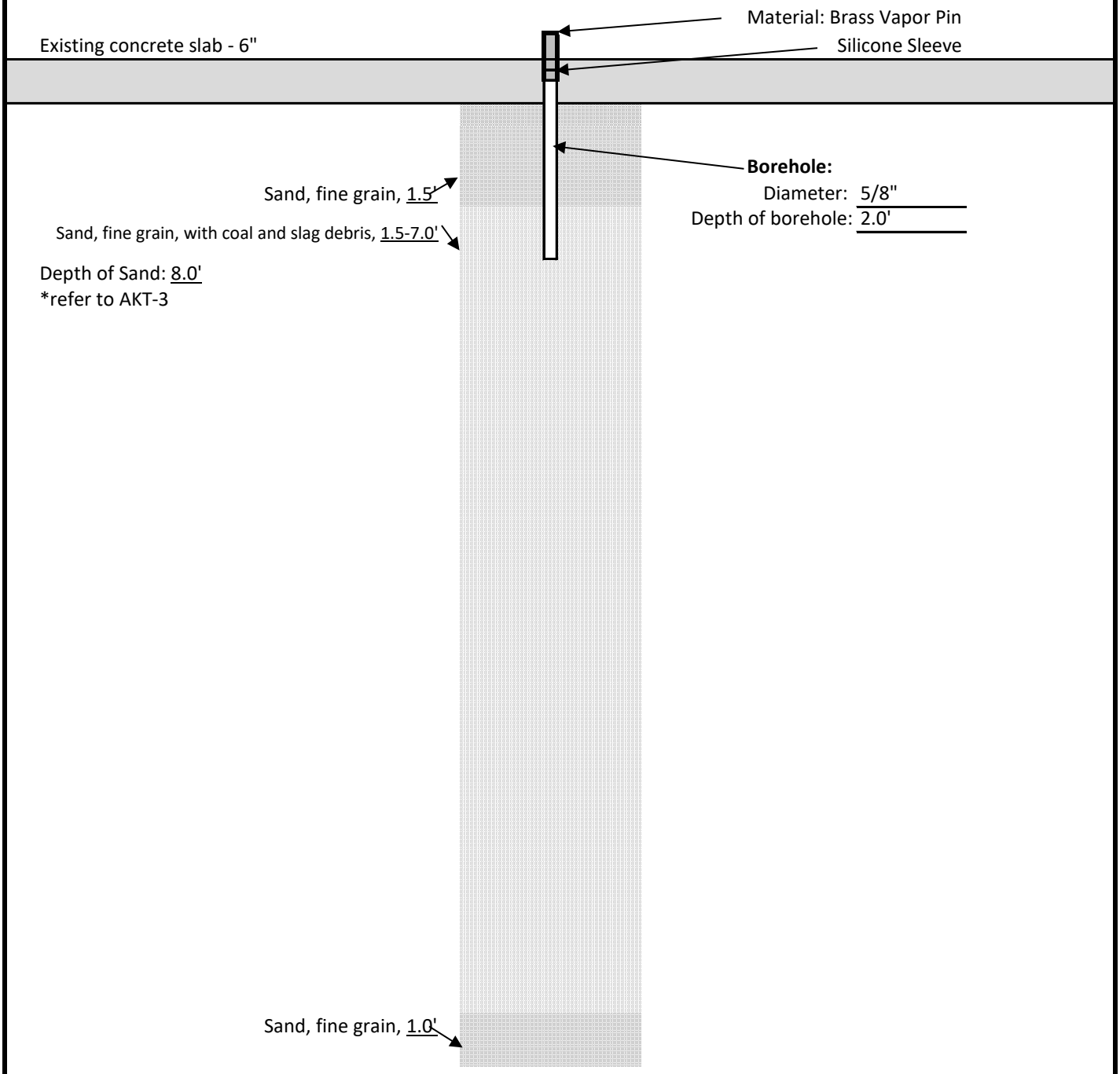
SUB-SLAB VAPOR PIN DIAGRAM

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

VP-2

Drawn by: KAS
Date: 11/16/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Kelly Streich	BOREHOLE DEPTH:	2'
DATE DRILLED:	9/25/2023	DEPTH TO GW:	N/A
DRILLING METHOD:	Hammer Drill	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	KKN	SCREEN MATERIAL:	N/A



NOT TO SCALE
DEPTHS REFERENCED FROM GROUND SURFACE

AKTPEERLESS

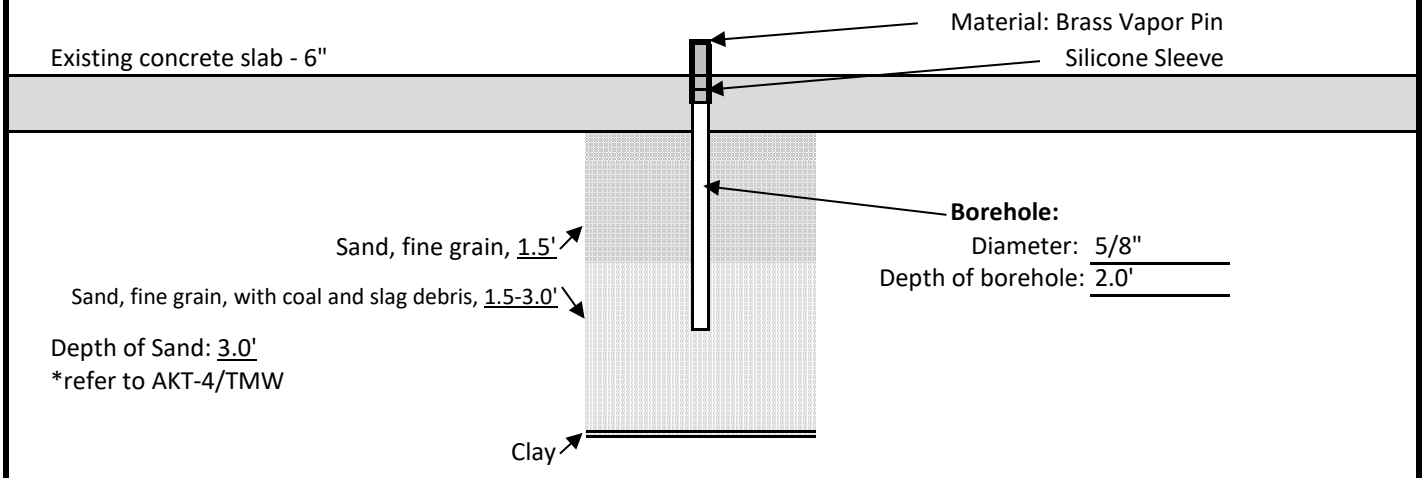
SUB-SLAB VAPOR PIN DIAGRAM

338 East 3rd Street
Imlay City, Michigan
AKT Peerless Project No: 18286s

VP-3

Drawn by: KAS
Date: 11/16/2023

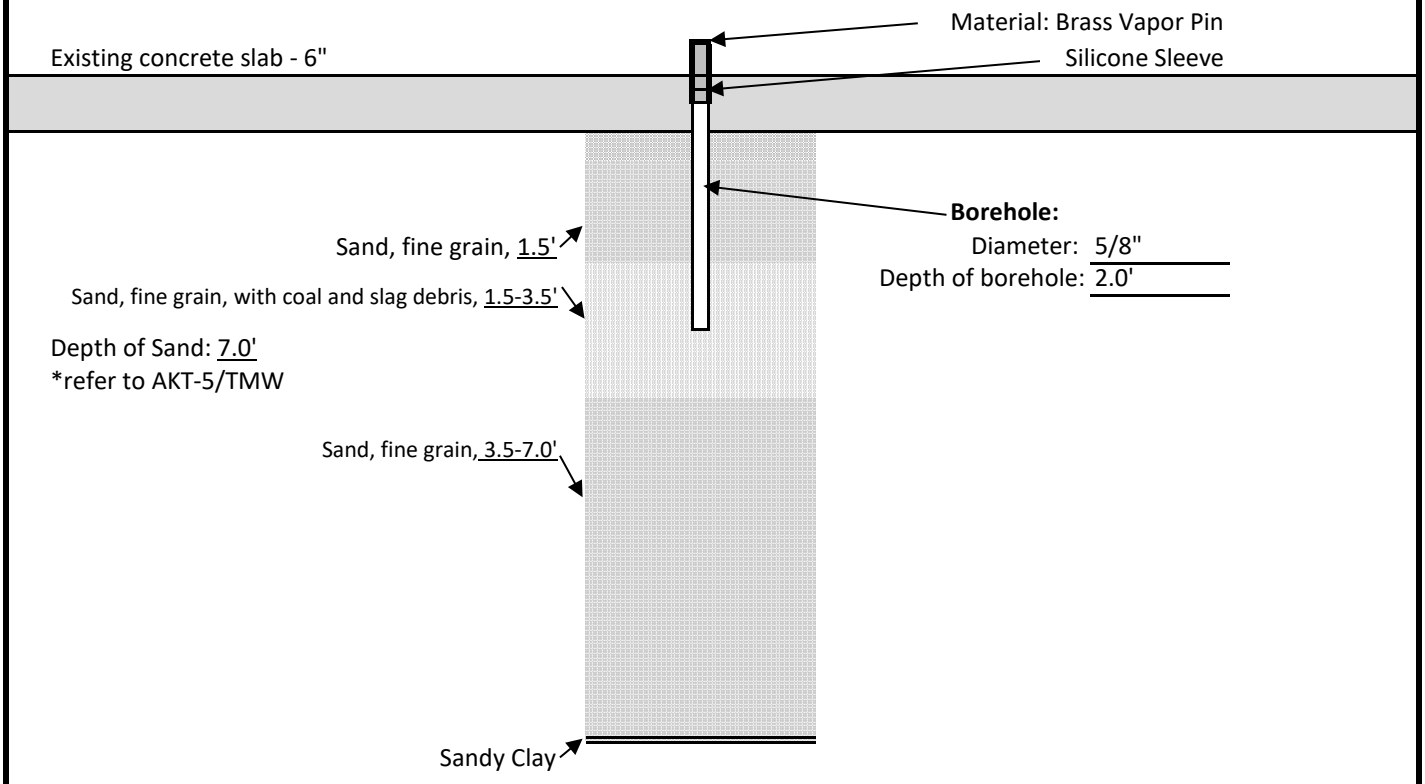
DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Kelly Streich	BOREHOLE DEPTH:	2'
DATE DRILLED:	9/25/2023	DEPTH TO GW:	N/A
DRILLING METHOD:	Hammer Drill	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	KKN	SCREEN MATERIAL:	N/A



NOT TO SCALE
DEPTHS REFERENCED FROM GROUND SURFACE

AKTPEERLESS	SUB-SLAB VAPOR PIN DIAGRAM 338 East 3rd Street Imlay City, Michigan AKT Peerless Project No: 18286s	VP-4 Drawn by: KAS Date: 11/16/2023

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 degrees, cloudy
TECHNICIAN:	Kelly Streich	BOREHOLE DEPTH:	2'
DATE DRILLED:	9/25/2023	DEPTH TO GW:	N/A
DRILLING METHOD:	Hammer Drill	SCREEN INTERVAL:	N/A
FIELD GEOLOGIST:	KKN	SCREEN MATERIAL:	N/A



NOT TO SCALE

DEPTHS REFERENCED FROM GROUND SURFACE

Appendix B

Laboratory Analytical Data

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

31 October 2023

Work Order: 2309377

Price: $5,990.50

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909

RE: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

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

Project: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY
Site Code: LB042449
Project Manager: Janet Michaluk

Reported:
10/31/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
AKT-1	2309377-01	Soil/Sediment	09/26/2023	09/29/2023	
AKT-2	2309377-02	Soil/Sediment	09/25/2023	09/29/2023	
AKT-3	2309377-03	Soil/Sediment	09/25/2023	09/29/2023	
AKT-4	2309377-04	Soil/Sediment	09/25/2023	09/29/2023	
AKT-5	2309377-05	Soil/Sediment	09/25/2023	09/29/2023	
AKT-6	2309377-06	Soil/Sediment	09/25/2023	09/29/2023	
AKT-7S	2309377-07	Soil/Sediment	09/25/2023	09/29/2023	
AKT-7D	2309377-08	Soil/Sediment	09/25/2023	09/29/2023	
AKT-8S	2309377-09	Soil/Sediment	09/25/2023	09/29/2023	
AKT-8D	2309377-10	Soil/Sediment	09/25/2023	09/29/2023	
AKT-9	2309377-11	Soil/Sediment	09/25/2023	09/29/2023	
AKT-DUP SOIL	2309377-12	Soil/Sediment	09/25/2023	09/29/2023	
MS AKT-7D	2309377-13	Soil/Sediment	09/25/2023	09/29/2023	
MSD AKT-7D	2309377-14	Soil/Sediment	09/25/2023	09/29/2023	
METHANOL TRIP BLANK	2309377-15	Soil/Sediment	09/25/2023	09/29/2023	

Notes and Definitions

Y21	Reporting limit(s) (RL) raised due to matrix interference.
Y17	Probable petroleum product(s) present.
Y11	Unidentified peaks present in sample.
X3	Spike recovery is not applicable due to elevated target analyte concentration in the source sample.
H	Recommended laboratory holding time was exceeded.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch QC.
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 the analyte was not detected at or above the method reporting limit (RL)
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY**

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

*****Case Narrative*****

Samples were received **9/29/2023 11:15:00AM** for client **EGLE-RRD-LANSING** as a part of project **IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY**.

Samples were logged and designated as Work Order # **2309377** on **9/29/2023 3:19:00PM**.

This Report was created **10/31/2023 8:46:43AM**.

Additional Notes/Narrative (if applicable):

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

Client ID: AKT-1

Lab ID: 2309377-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	Benzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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

Client ID: AKT-1

Lab ID: 2309377-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	Hexane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	Methylcyclopentane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	n-Heptane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	o-Xylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	Toluene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*122 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*130 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*127 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Client ID: AKT-1

Lab ID: 2309377-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17**
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	Anthracene	ND	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**440**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	**Benzo[a]pyrene**	**420**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**590**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**540**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**940**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**190**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**670**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**970**	120	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*98.1 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*80.4 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*115 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**85.7**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**8.4**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**54**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**6.6**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**22**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**66**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**0.7**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**69**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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

Client ID: AKT-2

Lab ID: 2309377-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	Benzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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Client ID: AKT-2

Lab ID: 2309377-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**270**	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	Methylcyclopentane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**370**	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	Toluene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*114 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*117 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*117 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17**
91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**110**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**120**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	210	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**140**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**130**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*91.3 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*73.0 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*95.6 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**93.0**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**31**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**24**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/18/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**16**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**34**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**0.6**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**36**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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Client ID: AKT-3

Lab ID: 2309377-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**940**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**1200**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**330**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**2100**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**3600**	1200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A09, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**210**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**1100**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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FAX: (517) 335-9600

Client ID: AKT-3

Lab ID: 2309377-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**360**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**500**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**190**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**2100**	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**1600**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**2100**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**190**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**720**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**230**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**1600**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	**sec-Butylbenzene**	**85**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**1500**	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*143 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*145 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*150 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Client ID: AKT-3

Lab ID: 2309377-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17**
91-57-6	**2-Methylnaphthalene**	**6800**	270	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**470**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	**Benzo[a]pyrene**	**370**	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**820**	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**740**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**770**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**4100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**3000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**800**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*100 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*84.6 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*93.6 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**92.0**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**7.4**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**32**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**4.9**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**9.7**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**34**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.08**	0.05	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**1.6**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**32**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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Client ID: AKT-4

Lab ID: 2309377-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**930**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**1100**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**260**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**1800**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**2300**	1300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A09, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**160**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**990**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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

Client ID: AKT-4

Lab ID: 2309377-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**360**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**300**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**180**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**2300**	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**1800**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**2000**	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**150**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**470**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**210**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**1800**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**1000**	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*141 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*142 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*146 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Client ID: AKT-4

Lab ID: 2309377-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**16000**	2800	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
83-32-9	**Acenaphthene**	**150**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	**Acenaphthylene**	**270**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**520**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**1100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**1200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**1900**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2300	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**10000**	1100	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**6600**	1100	ug/kg dry	10	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**2200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*101 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*86.3 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*118 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**87.9**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**8.6**	0.5	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-39-3	**Barium**	**9.7**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-47-3	Chromium	ND	2.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-50-8	**Copper**	**3.4**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7439-92-1	**Lead**	**8.3**	1.0	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**2.6**	0.2	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-66-6	**Zinc**	**6.2**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	

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Client ID: AKT-5

Lab ID: 2309377-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-34-3	1,1-Dichloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**1100**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**1300**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
106-93-4	1,2-Dibromoethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
107-06-2	1,2-Dichloroethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
78-87-5	1,2-Dichloropropane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**290**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
78-93-3	**2-Butanone (MEK)**	**480**	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	A09
91-57-6	**2-Methylnaphthalene**	**2200**	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
71-43-2	**Benzene**	**180**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
74-97-5	Bromochloromethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-27-4	Bromodichloromethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-25-2	Bromoform	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-15-0	Carbon disulfide	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
56-23-5	Carbon tetrachloride	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
108-90-7	Chlorobenzene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
67-66-3	Chloroform	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
110-82-7	**Cyclohexane**	**1100**	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
124-48-1	Dibromochloromethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
74-95-3	Dibromomethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	

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Client ID: AKT-5

Lab ID: 2309377-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
100-41-4	**Ethylbenzene**	**410**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
110-54-3	**Hexane**	**450**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
98-82-8	**Isopropylbenzene**	**210**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
1330-20-7	**m & p - Xylene**	**2500**	130	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
96-37-7	**Methylcyclopentane**	**1900**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
91-20-3	**Naphthalene**	**2300**	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
104-51-8	**n-Butylbenzene**	**190**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
142-82-5	**n-Heptane**	**750**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	A06, A09
103-65-1	**n-Propylbenzene**	**230**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
95-47-6	**o-Xylene**	**1900**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
135-98-8	**sec-Butylbenzene**	**73**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
100-42-5	Styrene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
98-06-6	tert-Butylbenzene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
127-18-4	Tetrachloroethylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
108-88-3	**Toluene**	**1300**	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
79-01-6	Trichloroethylene	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-69-4	Trichlorofluoromethane	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
75-01-4	Vinyl chloride	ND	65	ug/kg dry	50	10/09/23	B3J1028	8260	RD	
Surrogate: Bromofluorobenzene			*135 %*	*40-194*		*10/09/23*	B3J1028	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*140 %*	*52-217*		*10/09/23*	B3J1028	*8260*	*RD*	
Surrogate: Toluene-d8			*144 %*	*55-196*		*10/09/23*	B3J1028	*8260*	*RD*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**7600**	2700	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**230**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**490**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**680**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**750**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	**Fluorene**	**150**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2200	ug/kg dry	10	10/18/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**5300**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**3400**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**990**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*97.3 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*78.0 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*127 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**91.0**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**6.0**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**24**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	Chromium	ND	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**4.9**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**9.8**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.09**	0.05	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**1.0**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**8.0**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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Client ID: AKT-6

Lab ID: 2309377-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**1500**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**1800**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**400**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	**2-Butanone (MEK)**	**630**	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**2900**	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**3100**	1300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A09, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**360**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**1900**	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**620**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**790**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**240**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**4000**	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**3500**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**3500**	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**230**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**1000**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**300**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**2900**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	**sec-Butylbenzene**	**75**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**2500**	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*148 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*148 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*155 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Lab ID: 2309377-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**6300**	280	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**230**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**630**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**1200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**1300**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**3500**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**3200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**1400**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*99.6 %*	*36-133*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*76.8 %*	*26-123*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*105 %*	*36-142*		*10/18/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**87.7**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	

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Lab ID: 2309377-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**640**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**820**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**230**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**1600**	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**2900**	1100	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A09, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**130**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**880**	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**240**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**290**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**140**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**1600**	110	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**1300**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**1600**	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**130**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**430**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**160**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**1300**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	**sec-Butylbenzene**	**58**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**950**	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*133 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*141 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*145 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Client ID: AKT-7S

Lab ID: 2309377-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**14000**	2700	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**390**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**1200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**1700**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**2400**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
86-73-7	**Fluorene**	**280**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**9200**	1100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**6100**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**2800**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*104 %*	*36-133*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*85.6 %*	*26-123*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*124 %*	*36-142*		*10/18/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**93.6**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**2.5**	0.5	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-39-3	**Barium**	**13**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-47-3	Chromium	ND	2.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-50-8	**Copper**	**5.4**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7439-92-1	**Lead**	**23**	1.0	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**0.5**	0.2	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-66-6	**Zinc**	**17**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	

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Client ID: AKT-7D

Lab ID: 2309377-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-43-2	Benzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-25-2	Bromoform	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-66-3	Chloroform	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	

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Client ID: AKT-7D

Lab ID: 2309377-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-54-3	Hexane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-37-7	Methylcyclopentane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
142-82-5	n-Heptane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-47-6	o-Xylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-42-5	Styrene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-88-3	Toluene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
Surrogate: Bromofluorobenzene			*110 %*	*40.3-194*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*123 %*	*52.1-217*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Toluene-d8			*117 %*	*55.4-196*		*10/06/23*	B3J0910	*8260*	*RD*	

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Lab ID: 2309377-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*102 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*66.9 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*94.1 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**87.4**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**4.5**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**9.6**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**4.9**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**4.1**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**3.5**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**23**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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Client ID: AKT-8S

Lab ID: 2309377-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**1800**	1300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	Benzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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Client ID: AKT-8S

Lab ID: 2309377-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	Hexane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	Methylcyclopentane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	n-Heptane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	Toluene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*122 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*133 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*127 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Lab ID: 2309377-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*93.7 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*77.5 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*100 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**88.7**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**9.0**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**40**	1.0	mg/kg dry	10	10/18/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**13**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**6.4**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**1.1**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**40**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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Client ID: AKT-8D

Lab ID: 2309377-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	Benzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	Hexane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	Methylcyclopentane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	n-Heptane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	Toluene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*103 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*108 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: AKT-8D

Lab ID: 2309377-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2300	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*93.6 %*	*36-133*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*73.4 %*	*26-123*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*113 %*	*36-142*		*10/18/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**87.2**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**9.2**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**38**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**13**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**6.3**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**1.2**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**42**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

MICHIGAN DEPARTMENT OF
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Client ID: AKT-9

Lab ID: 2309377-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**410**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**540**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**130**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**1100**	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**69**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**400**	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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Client ID: AKT-9

Lab ID: 2309377-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**140**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**260**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**62**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**1100**	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**250**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**1200**	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**70**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**340**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**90**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**790**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**560**	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*124 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*133 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*130 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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TEL: (517) 335-9800
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Client ID: AKT-9

Lab ID: 2309377-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**1200**	270	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**140**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**540**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**740**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**1200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2100	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**750**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**1200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**1000**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*95.3 %*	*36-133*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*73.1 %*	*26-123*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*126 %*	*36-142*		*10/18/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**93.1**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**3.3**	0.5	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-39-3	**Barium**	**46**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	10/19/23	B3J1224	200.8	CL	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-50-8	**Copper**	**19**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7439-92-1	**Lead**	**18**	1.0	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7439-97-6	**Mercury**	**0.08**	0.05	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**0.4**	0.2	mg/kg dry	10	10/17/23	B3J1224	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	10/16/23	B3J1224	200.8	CL	

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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: AKT-DUP SOIL

Lab ID: 2309377-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**1400**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**1500**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**340**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	**2-Methylnaphthalene**	**2800**	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	**2-Propanone (acetone)**	**3100**	1400	ug/kg dry	50	10/07/23	B3J0911	8260	RD	A09, A11
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	**Benzene**	**240**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	**Cyclohexane**	**1400**	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	**Ethylbenzene**	**490**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	**Hexane**	**480**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	**Isopropylbenzene**	**290**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	**m & p - Xylene**	**2900**	140	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	**Methylcyclopentane**	**2400**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	**Naphthalene**	**2900**	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	**n-Butylbenzene**	**240**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	**n-Heptane**	**730**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	**n-Propylbenzene**	**290**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	**o-Xylene**	**2400**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	**sec-Butylbenzene**	**93**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	**Toluene**	**1500**	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*148 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*157 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*160 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Organics-Semivolatiles										**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**9200**	2800	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**270**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**590**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
50-32-8	Benzo[a]pyrene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**850**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**880**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
86-73-7	**Fluorene**	**200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2200	ug/kg dry	10	10/20/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**6500**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**4200**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**1500**	110	ug/kg dry	1	10/18/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*99.5 %*	*36-133*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*78.7 %*	*26-123*		*10/18/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*92.4 %*	*36-142*		*10/20/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**88.9**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**9.6**	0.5	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**29**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	10/18/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**2.1**	2.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**6.7**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**18**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**1.9**	0.2	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**11**	1.0	mg/kg dry	10	10/16/23	B3J0439	200.8	CL	

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Client ID: MS AKT-7D

Lab ID: 2309377-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	**1,1,1,2-Tetrachloroethane**	**3000**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-55-6	**1,1,1-Trichloroethane**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-34-5	**1,1,2,2-Tetrachloroethane**	**3700**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-00-5	**1,1,2-Trichloroethane**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
76-13-1	**1,1,2-Trichlorotrifluoroethane**	**3300**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-34-3	**1,1-Dichloroethane**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-35-4	**1,1-Dichloroethylene**	**3300**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
87-61-6	**1,2,3-Trichlorobenzene**	**3500**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-18-4	**1,2,3-Trichloropropane**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
120-82-1	**1,2,4-Trichlorobenzene**	**3400**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-12-8	**1,2-Dibromo-3-chloropropane**	**3000**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-93-4	**1,2-Dibromoethane**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-50-1	**1,2-Dichlorobenzene**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-06-2	**1,2-Dichloroethane**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-87-5	**1,2-Dichloropropane**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
541-73-1	**1,3-Dichlorobenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-46-7	**1,4-Dichlorobenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
540-84-1	**2,2,4-Trimethylpentane**	**3700**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-93-3	**2-Butanone (MEK)**	**3900**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-57-6	**2-Methylnaphthalene**	**3300**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-64-1	**2-Propanone (acetone)**	**4500**	1400	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**3200**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-13-1	**Acrylonitrile**	**3800**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-43-2	**Benzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-97-5	**Bromochloromethane**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-27-4	**Bromodichloromethane**	**3000**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-25-2	**Bromoform**	**2800**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-83-9	**Bromomethane**	**3600**	270	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-15-0	**Carbon disulfide**	**3000**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
56-23-5	**Carbon tetrachloride**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-90-7	**Chlorobenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-00-3	**Chloroethane**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-66-3	**Chloroform**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-87-3	**Chloromethane**	**3700**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-59-2	**cis-1,2-Dichloroethylene**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-01-5	**cis-1,3-Dichloropropylene**	**3200**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-82-7	**Cyclohexane**	**3700**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	

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Organics-Volatiles										
124-48-1	**Dibromochloromethane**	**2900**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-95-3	**Dibromomethane**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-71-8	**Dichlorodifluoromethane**	**3500**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
60-29-7	**Diethyl ether**	**3600**	270	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-20-3	**Diisopropyl Ether**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-41-4	**Ethylbenzene**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
637-92-3	**Ethyltertiarybutylether**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-72-1	**Hexachloroethane**	**2700**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-54-3	**Hexane**	**3800**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-82-8	**Isopropylbenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1330-20-7	**m & p - Xylene**	**7100**	140	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-37-7	**Methylcyclopentane**	**3700**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-09-2	**Methylene chloride**	**3500**	140	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1634-04-4	**Methyltertiarybutylether**	**3100**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-20-3	**Naphthalene**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
104-51-8	**n-Butylbenzene**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
142-82-5	**n-Heptane**	**4200**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
103-65-1	**n-Propylbenzene**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-47-6	**o-Xylene**	**3600**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
135-98-8	**sec-Butylbenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-42-5	**Styrene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-06-6	**tert-Butylbenzene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-65-0	**tertiary Butyl Alcohol**	**25000**	3400	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
994-05-8	**tertiaryAmylmethylether**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
127-18-4	**Tetrachloroethylene**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
109-99-9	**Tetrahydrofuran**	**3600**	340	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-88-3	**Toluene**	**3400**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-60-5	**trans-1,2-Dichloroethylene**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-02-6	**trans-1,3-Dichloropropylene**	**3200**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-01-6	**Trichloroethylene**	**3300**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-69-4	**Trichlorofluoromethane**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-01-4	**Vinyl chloride**	**3500**	68	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
Surrogate: Bromofluorobenzene			*113 %*	*40.3-194*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*120 %*	*52.1-217*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Toluene-d8			*114 %*	*55.4-196*		*10/06/23*	B3J0910	*8260*	*RD*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: MS AKT-7D

Lab ID: 2309377-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	**2-Methylnaphthalene**	**2200**	290	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	**Acenaphthene**	**1900**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	**Acenaphthylene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**2200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	**Benzo[a]pyrene**	**2000**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**1900**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	**Benzo[g,h,i]perylene**	**1900**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	**Benzo[k]fluoranthene**	**2000**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	**Dibenz[a,h]anthracene**	**1700**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	**Fluorene**	**2200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1800**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*96.7 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*81.3 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*97.8 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**87.0**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**85**	5.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**92**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-43-9	**Cadmium**	**8.4**	2.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**86**	20	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**85**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**93**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.5**	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**88**	2.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-22-4	**Silver**	**8.5**	1.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**110**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	

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Client ID: MSD AKT-7D

Lab ID: 2309377-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	**1,1,1,2-Tetrachloroethane**	**3200**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-55-6	**1,1,1-Trichloroethane**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-34-5	**1,1,2,2-Tetrachloroethane**	**3900**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-00-5	**1,1,2-Trichloroethane**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
76-13-1	**1,1,2-Trichlorotrifluoroethane**	**3300**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-34-3	**1,1-Dichloroethane**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-35-4	**1,1-Dichloroethylene**	**3200**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
87-61-6	**1,2,3-Trichlorobenzene**	**3600**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-18-4	**1,2,3-Trichloropropane**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
526-73-8	**1,2,3-Trimethylbenzene**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
120-82-1	**1,2,4-Trichlorobenzene**	**3600**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-63-6	**1,2,4-Trimethylbenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-12-8	**1,2-Dibromo-3-chloropropane**	**3200**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-93-4	**1,2-Dibromoethane**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-50-1	**1,2-Dichlorobenzene**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-06-2	**1,2-Dichloroethane**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-87-5	**1,2-Dichloropropane**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-67-8	**1,3,5-Trimethylbenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
541-73-1	**1,3-Dichlorobenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
106-46-7	**1,4-Dichlorobenzene**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
540-84-1	**2,2,4-Trimethylpentane**	**3500**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
78-93-3	**2-Butanone (MEK)**	**3800**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-57-6	**2-Methylnaphthalene**	**3500**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-64-1	**2-Propanone (acetone)**	**4800**	1300	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**3300**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
107-13-1	**Acrylonitrile**	**3600**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
71-43-2	**Benzene**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-97-5	**Bromochloromethane**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-27-4	**Bromodichloromethane**	**3000**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-25-2	**Bromoform**	**2900**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-83-9	**Bromomethane**	**3600**	260	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-15-0	**Carbon disulfide**	**3000**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
56-23-5	**Carbon tetrachloride**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-90-7	**Chlorobenzene**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-00-3	**Chloroethane**	**3400**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-66-3	**Chloroform**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-87-3	**Chloromethane**	**3500**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-59-2	**cis-1,2-Dichloroethylene**	**3300**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-01-5	**cis-1,3-Dichloropropylene**	**3200**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-82-7	**Cyclohexane**	**3500**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	

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Client ID: MSD AKT-7D

Lab ID: 2309377-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
124-48-1	**Dibromochloromethane**	**3000**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
74-95-3	**Dibromomethane**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-71-8	**Dichlorodifluoromethane**	**3400**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
60-29-7	**Diethyl ether**	**3500**	260	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-20-3	**Diisopropyl Ether**	**3400**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-41-4	**Ethylbenzene**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
637-92-3	**Ethyltertiarybutylether**	**3400**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
67-72-1	**Hexachloroethane**	**2900**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
110-54-3	**Hexane**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-82-8	**Isopropylbenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1330-20-7	**m & p - Xylene**	**7300**	130	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
96-37-7	**Methylcyclopentane**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-09-2	**Methylene chloride**	**3300**	130	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
1634-04-4	**Methyltertiarybutylether**	**3000**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
91-20-3	**Naphthalene**	**3800**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
104-51-8	**n-Butylbenzene**	**3800**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
142-82-5	**n-Heptane**	**4100**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
103-65-1	**n-Propylbenzene**	**3800**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
95-47-6	**o-Xylene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
135-98-8	**sec-Butylbenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
100-42-5	**Styrene**	**3600**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
98-06-6	**tert-Butylbenzene**	**3700**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-65-0	**tertiary Butyl Alcohol**	**26000**	3300	ug/kg dry	50	10/06/23	B3J0910	8260	RD	A04, A06, A11
994-05-8	**tertiaryAmylmethylether**	**3600**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
127-18-4	**Tetrachloroethylene**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
109-99-9	**Tetrahydrofuran**	**3400**	330	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
108-88-3	**Toluene**	**3500**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
156-60-5	**trans-1,2-Dichloroethylene**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
10061-02-6	**trans-1,3-Dichloropropylene**	**3100**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
79-01-6	**Trichloroethylene**	**3200**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-69-4	**Trichlorofluoromethane**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
75-01-4	**Vinyl chloride**	**3400**	66	ug/kg dry	50	10/06/23	B3J0910	8260	RD	
Surrogate: Bromofluorobenzene			*124 %*	*40.3-194*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*122 %*	*52.1-217*		*10/06/23*	B3J0910	*8260*	*RD*	
Surrogate: Toluene-d8			*122 %*	*55.4-196*		*10/06/23*	B3J0910	*8260*	*RD*	

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Client ID: MSD AKT-7D

Lab ID: 2309377-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	**2-Methylnaphthalene**	**2000**	280	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
83-32-9	**Acenaphthene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
208-96-8	**Acenaphthylene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
120-12-7	**Anthracene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
56-55-3	**Benz[a]anthracene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
50-32-8	**Benzo[a]pyrene**	**2100**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**2100**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
191-24-2	**Benzo[g,h,i]perylene**	**2000**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
207-08-9	**Benzo[k]fluoranthene**	**2200**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
218-01-9	**Chrysene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
53-70-3	**Dibenz[a,h]anthracene**	**1800**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
206-44-0	**Fluoranthene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
86-73-7	**Fluorene**	**2200**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**2000**	230	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
91-20-3	**Naphthalene**	**1600**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
85-01-8	**Phenanthrene**	**2000**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
129-00-0	**Pyrene**	**2100**	110	ug/kg dry	1	10/17/23	B3J0516	8270	MF	
Surrogate: 2-Fluorobiphenyl			*94.7 %*	*36-133*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*65.0 %*	*26-123*		*10/17/23*	B3J0516	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*96.4 %*	*36-142*		*10/17/23*	B3J0516	*8270*	*MF*	
Inorganics-General Chemistry										
TS	**% Total Solids**	**88.2**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	
Inorganics-Metals										
7440-38-2	**Arsenic**	**89**	5.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-39-3	**Barium**	**95**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-43-9	**Cadmium**	**9.6**	2.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-47-3	**Chromium**	**91**	20	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-50-8	**Copper**	**89**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7439-92-1	**Lead**	**96**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7439-97-6	**Mercury**	**0.5**	0.06	mg/kg dry	1	10/11/23	B3J0925	245.5	JP1	
7782-49-2	**Selenium**	**90**	2.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-22-4	**Silver**	**9.3**	1.0	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	
7440-66-6	**Zinc**	**120**	10	mg/kg dry	100	10/16/23	B3J0439	200.8	CL	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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TEL: (517) 335-9800
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Client ID: METHANOL TRIP BLANK

Lab ID: 2309377-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-34-3	1,1-Dichloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-35-4	1,1-Dichloroethylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-18-4	1,2,3-Trichloropropane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
526-73-8	1,2,3-Trimethylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-63-6	1,2,4-Trimethylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-93-4	1,2-Dibromoethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-06-2	1,2-Dichloroethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-87-5	1,2-Dichloropropane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-67-8	1,3,5-Trimethylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
540-84-1	2,2,4-Trimethylpentane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
78-93-3	2-Butanone (MEK)	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-57-6	2-Methylnaphthalene	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-64-1	2-Propanone (acetone)	ND	1000	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
107-13-1	Acrylonitrile	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
71-43-2	Benzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-97-5	Bromochloromethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-27-4	Bromodichloromethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-25-2	Bromoform	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-83-9	Bromomethane	ND	200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-15-0	Carbon disulfide	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
56-23-5	Carbon tetrachloride	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-90-7	Chlorobenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-00-3	Chloroethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-66-3	Chloroform	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-87-3	Chloromethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-59-2	cis-1,2-Dichloroethylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-01-5	cis-1,3-Dichloropropylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-82-7	Cyclohexane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
124-48-1	Dibromochloromethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
74-95-3	Dibromomethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	

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Client ID: METHANOL TRIP BLANK

Lab ID: 2309377-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
60-29-7	Diethyl ether	ND	200	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-20-3	Diisopropyl Ether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-41-4	Ethylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
637-92-3	Ethyltertiarybutylether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
67-72-1	Hexachloroethane	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
110-54-3	Hexane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-82-8	Isopropylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1330-20-7	m & p - Xylene	ND	100	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
96-37-7	Methylcyclopentane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-09-2	Methylene chloride	ND	100	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
1634-04-4	Methyltertiarybutylether	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
91-20-3	Naphthalene	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
104-51-8	n-Butylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
142-82-5	n-Heptane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
103-65-1	n-Propylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
95-47-6	o-Xylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
135-98-8	sec-Butylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
100-42-5	Styrene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
98-06-6	tert-Butylbenzene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-65-0	tertiary Butyl Alcohol	ND	2500	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
994-05-8	tertiaryAmylmethylether	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
127-18-4	Tetrachloroethylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
109-99-9	Tetrahydrofuran	ND	250	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
108-88-3	Toluene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
156-60-5	trans-1,2-Dichloroethylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
10061-02-6	trans-1,3-Dichloropropylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
79-01-6	Trichloroethylene	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-69-4	Trichlorofluoromethane	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
75-01-4	Vinyl chloride	ND	50	ug/kg dry	50	10/07/23	B3J0911	8260	RD	
Surrogate: Bromofluorobenzene			*91.2 %*	*40.3-194*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Dibromofluoromethane			*98.0 %*	*52.1-217*		*10/07/23*	B3J0911	*8260*	*RD*	
Surrogate: Toluene-d8			*93.7 %*	*55.4-196*		*10/07/23*	B3J0911	*8260*	*RD*	

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Lab ID: 2309377-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Inorganics-General Chemistry										
TS	**% Total Solids**	**100**	0.1	%	1	10/09/23	B3J0921	2540 G	BL	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/06/2023**							
Blank (B3J0910-BLK1)											
1,1,1,2-Tetrachloroethane	ND	50	ug/kg wet							10/06/2023	
1,1,1-Trichloroethane	ND	50	ug/kg wet							10/06/2023	
1,1,2,2-Tetrachloroethane	ND	50	ug/kg wet							10/06/2023	
1,1,2-Trichloroethane	ND	50	ug/kg wet							10/06/2023	
1,1,2-Trichlorotrifluoroethane	ND	50	ug/kg wet							10/06/2023	
1,1-Dichloroethane	ND	50	ug/kg wet							10/06/2023	
1,1-Dichloroethylene	ND	50	ug/kg wet							10/06/2023	
1,2,3-Trichlorobenzene	ND	250	ug/kg wet							10/06/2023	
1,2,3-Trichloropropane	ND	50	ug/kg wet							10/06/2023	
1,2,3-Trimethylbenzene	ND	50	ug/kg wet							10/06/2023	
1,2,4-Trichlorobenzene	ND	250	ug/kg wet							10/06/2023	
1,2,4-Trimethylbenzene	ND	50	ug/kg wet							10/06/2023	
1,2-Dibromo-3-chloropropane	ND	250	ug/kg wet							10/06/2023	
1,2-Dibromoethane	ND	50	ug/kg wet							10/06/2023	
1,2-Dichlorobenzene	ND	50	ug/kg wet							10/06/2023	
1,2-Dichloroethane	ND	50	ug/kg wet							10/06/2023	
1,2-Dichloropropane	ND	50	ug/kg wet							10/06/2023	
1,3,5-Trimethylbenzene	ND	50	ug/kg wet							10/06/2023	
1,3-Dichlorobenzene	ND	50	ug/kg wet							10/06/2023	
1,4-Dichlorobenzene	ND	50	ug/kg wet							10/06/2023	
2,2,4-Trimethylpentane	ND	250	ug/kg wet							10/06/2023	
2-Butanone (MEK)	ND	250	ug/kg wet							10/06/2023	
2-Methylnaphthalene	ND	250	ug/kg wet							10/06/2023	
2-Propanone (acetone)	ND	1000	ug/kg wet							10/06/2023	
4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg wet							10/06/2023	
Acrylonitrile	ND	250	ug/kg wet							10/06/2023	
Benzene	ND	50	ug/kg wet							10/06/2023	
Bromochloromethane	ND	50	ug/kg wet							10/06/2023	
Bromodichloromethane	ND	50	ug/kg wet							10/06/2023	
Bromoform	ND	50	ug/kg wet							10/06/2023	
Bromomethane	ND	200	ug/kg wet							10/06/2023	
Carbon disulfide	ND	50	ug/kg wet							10/06/2023	
Carbon tetrachloride	ND	50	ug/kg wet							10/06/2023	
Chlorobenzene	ND	50	ug/kg wet							10/06/2023	
Chloroethane	ND	250	ug/kg wet							10/06/2023	
Chloroform	ND	50	ug/kg wet							10/06/2023	
Chloromethane	ND	250	ug/kg wet							10/06/2023	
cis-1,2-Dichloroethylene	ND	50	ug/kg wet							10/06/2023	
cis-1,3-Dichloropropylene	ND	50	ug/kg wet							10/06/2023	
Cyclohexane	ND	250	ug/kg wet							10/06/2023	
Dibromochloromethane	ND	50	ug/kg wet							10/06/2023	
Dibromomethane	ND	50	ug/kg wet							10/06/2023	
Dichlorodifluoromethane	ND	250	ug/kg wet							10/06/2023	
Diethyl ether	ND	200	ug/kg wet							10/06/2023	
Diisopropyl Ether	ND	250	ug/kg wet							10/06/2023	
Ethylbenzene	ND	50	ug/kg wet							10/06/2023	
Ethyltertiarybutylether	ND	250	ug/kg wet							10/06/2023	
Hexachloroethane	ND	250	ug/kg wet							10/06/2023	
Hexane	ND	50	ug/kg wet							10/06/2023	
Isopropylbenzene	ND	50	ug/kg wet							10/06/2023	
m & p - Xylene	ND	100	ug/kg wet							10/06/2023	
Methylcyclopentane	ND	50	ug/kg wet							10/06/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/06/2023**							
Blank (B3J0910-BLK1)											
Methylene chloride	ND	100	ug/kg wet							10/06/2023	
Methyltertiarybutylether	ND	50	ug/kg wet							10/06/2023	
Naphthalene	ND	250	ug/kg wet							10/06/2023	
n-Butylbenzene	ND	50	ug/kg wet							10/06/2023	
n-Heptane	ND	50	ug/kg wet							10/06/2023	
n-Propylbenzene	ND	50	ug/kg wet							10/06/2023	
o-Xylene	ND	50	ug/kg wet							10/06/2023	
sec-Butylbenzene	ND	50	ug/kg wet							10/06/2023	
Styrene	ND	50	ug/kg wet							10/06/2023	
tert-Butylbenzene	ND	50	ug/kg wet							10/06/2023	
tertiary Butyl Alcohol	ND	2500	ug/kg wet							10/06/2023	
tertiaryAmylmethylether	ND	250	ug/kg wet							10/06/2023	
Tetrachloroethylene	ND	50	ug/kg wet							10/06/2023	
Tetrahydrofuran	ND	250	ug/kg wet							10/06/2023	
Toluene	ND	50	ug/kg wet							10/06/2023	
trans-1,2-Dichloroethylene	ND	50	ug/kg wet							10/06/2023	
trans-1,3-Dichloropropylene	ND	50	ug/kg wet							10/06/2023	
Trichloroethylene	ND	50	ug/kg wet							10/06/2023	
Trichlorofluoromethane	ND	50	ug/kg wet							10/06/2023	
Vinyl chloride	ND	50	ug/kg wet							10/06/2023	
Surrogate: Bromofluorobenzene	*46.7*		ug/L	*50.00*		*93.5*	*40.3-194*			10/06/2023	
Surrogate: Dibromofluoromethane	*48.2*		ug/L	*50.00*		*96.4*	*52.1-217*			10/06/2023	
Surrogate: Toluene-d8	*47.8*		ug/L	*50.00*		*95.7*	*55.4-196*			10/06/2023	
LCS (B3J0910-BS1)											
1,1,1,2-Tetrachloroethane	2400	50	ug/kg wet	2500		96.0	70-130			10/06/2023	
1,1,1-Trichloroethane	2690	50	ug/kg wet	2500		108	70-130			10/06/2023	
1,1,2,2-Tetrachloroethane	2450	50	ug/kg wet	2500		97.8	70-130			10/06/2023	
1,1,2-Trichloroethane	2710	50	ug/kg wet	2500		109	70-130			10/06/2023	
1,1,2-Trichlorotrifluoroethane	2420	50	ug/kg wet	2500		96.8	70-130			10/06/2023	
1,1-Dichloroethane	2600	50	ug/kg wet	2500		104	70-130			10/06/2023	
1,1-Dichloroethylene	2400	50	ug/kg wet	2500		96.0	70-130			10/06/2023	
1,2,3-Trichlorobenzene	2670	250	ug/kg wet	2500		107	70-130			10/06/2023	
1,2,3-Trichloropropane	2760	50	ug/kg wet	2500		111	70-130			10/06/2023	
1,2,3-Trimethylbenzene	2680	50	ug/kg wet	2500		107	70-130			10/06/2023	
1,2,4-Trichlorobenzene	2590	250	ug/kg wet	2500		104	70-130			10/06/2023	
1,2,4-Trimethylbenzene	2690	50	ug/kg wet	2500		108	70-130			10/06/2023	
1,2-Dibromo-3-chloropropane	2370	250	ug/kg wet	2500		95.0	70-130			10/06/2023	
1,2-Dibromoethane	2700	50	ug/kg wet	2500		108	70-130			10/06/2023	
1,2-Dichlorobenzene	2680	50	ug/kg wet	2500		107	70-130			10/06/2023	
1,2-Dichloroethane	2630	50	ug/kg wet	2500		105	70-130			10/06/2023	
1,2-Dichloropropane	2660	50	ug/kg wet	2500		107	70-130			10/06/2023	
1,3,5-Trimethylbenzene	2730	50	ug/kg wet	2500		109	70-130			10/06/2023	
1,3-Dichlorobenzene	2710	50	ug/kg wet	2500		108	70-130			10/06/2023	
1,4-Dichlorobenzene	2670	50	ug/kg wet	2500		107	70-130			10/06/2023	
2,2,4-Trimethylpentane	2220	250	ug/kg wet	2500		88.9	70-130			10/06/2023	
2-Butanone (MEK)	2950	250	ug/kg wet	2500		118	70-130			10/06/2023	
2-Methylnaphthalene	2420	250	ug/kg wet	2500		96.7	70-130			10/06/2023	
2-Propanone (acetone)	3650	1000	ug/kg wet	2500		146	70-130			10/06/2023	A06, A09, A11
4-Methyl-2-pentanone (MIBK)	2350	250	ug/kg wet	2500		94.0	70-130			10/06/2023	
Acrylonitrile	2680	250	ug/kg wet	2500		107	70-130			10/06/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/06/2023**							
LCS (B3J0910-BS1)											
Benzene	2560	50	ug/kg wet	2500		102	70-130			10/06/2023	
Bromochloromethane	2570	50	ug/kg wet	2500		103	70-130			10/06/2023	
Bromodichloromethane	2370	50	ug/kg wet	2500		94.9	70-130			10/06/2023	
Bromoform	2280	50	ug/kg wet	2500		91.1	70-130			10/06/2023	
Bromomethane	2620	200	ug/kg wet	2500		105	70-130			10/06/2023	
Carbon disulfide	2310	50	ug/kg wet	2500		92.5	70-130			10/06/2023	
Carbon tetrachloride	2590	50	ug/kg wet	2500		103	70-130			10/06/2023	
Chlorobenzene	2610	50	ug/kg wet	2500		104	70-130			10/06/2023	
Chloroethane	2610	250	ug/kg wet	2500		104	70-130			10/06/2023	
Chloroform	2570	50	ug/kg wet	2500		103	70-130			10/06/2023	
Chloromethane	2640	250	ug/kg wet	2500		106	70-130			10/06/2023	
cis-1,2-Dichloroethylene	2520	50	ug/kg wet	2500		101	70-130			10/06/2023	
cis-1,3-Dichloropropylene	2380	50	ug/kg wet	2500		95.1	70-130			10/06/2023	
Cyclohexane	2570	250	ug/kg wet	2500		103	70-130			10/06/2023	
Dibromochloromethane	2310	50	ug/kg wet	2500		92.5	70-130			10/06/2023	
Dibromomethane	2610	50	ug/kg wet	2500		105	70-130			10/06/2023	
Dichlorodifluoromethane	2510	250	ug/kg wet	2500		101	70-130			10/06/2023	A06, A11
Diethyl ether	2690	200	ug/kg wet	2500		108	70-130			10/06/2023	
Diisopropyl Ether	2590	250	ug/kg wet	2500		104	70-130			10/06/2023	
Ethylbenzene	2580	50	ug/kg wet	2500		103	70-130			10/06/2023	
Ethyltertiarybutylether	2620	250	ug/kg wet	2500		105	70-130			10/06/2023	
Hexachloroethane	2240	250	ug/kg wet	2500		89.7	70-130			10/06/2023	
Hexane	2270	50	ug/kg wet	2500		90.9	70-130			10/06/2023	
Isopropylbenzene	2710	50	ug/kg wet	2500		108	70-130			10/06/2023	
m & p - Xylene	5290	100	ug/kg wet	5000		106	70-130			10/06/2023	
Methylcyclopentane	2610	50	ug/kg wet	2500		104	70-130			10/06/2023	
Methylene chloride	2480	100	ug/kg wet	2500		99.1	70-130			10/06/2023	
Methyltertiarybutylether	2320	50	ug/kg wet	2500		92.8	70-130			10/06/2023	
Naphthalene	2690	250	ug/kg wet	2500		107	70-130			10/06/2023	
n-Butylbenzene	2680	50	ug/kg wet	2500		107	70-130			10/06/2023	
n-Heptane	2380	50	ug/kg wet	2500		95.3	70-130			10/06/2023	
n-Propylbenzene	2750	50	ug/kg wet	2500		110	70-130			10/06/2023	
o-Xylene	2680	50	ug/kg wet	2500		107	70-130			10/06/2023	
sec-Butylbenzene	2720	50	ug/kg wet	2500		109	70-130			10/06/2023	
Styrene	2650	50	ug/kg wet	2500		106	70-130			10/06/2023	
tert-Butylbenzene	2730	50	ug/kg wet	2500		109	70-130			10/06/2023	
tertiary Butyl Alcohol	19800	2500	ug/kg wet	12500		158	70-130			10/06/2023	A06, A09, A11
tertiaryAmylmethylether	2670	250	ug/kg wet	2500		107	70-130			10/06/2023	
Tetrachloroethylene	2620	50	ug/kg wet	2500		105	70-130			10/06/2023	
Tetrahydrofuran	2480	250	ug/kg wet	2500		99.1	70-130			10/06/2023	
Toluene	2560	50	ug/kg wet	2500		102	70-130			10/06/2023	
trans-1,2-Dichloroethylene	2520	50	ug/kg wet	2500		101	70-130			10/06/2023	
trans-1,3-Dichloropropylene	2370	50	ug/kg wet	2500		94.7	70-130			10/06/2023	
Trichloroethylene	2830	50	ug/kg wet	2500		113	70-130			10/06/2023	
Trichlorofluoromethane	2530	50	ug/kg wet	2500		101	70-130			10/06/2023	
Vinyl chloride	2590	50	ug/kg wet	2500		103	70-130			10/06/2023	
Surrogate: Bromofluorobenzene	*53.0*		ug/L	*50.00*		*106*	*40.3-194*			10/06/2023	
Surrogate: Dibromofluoromethane	*51.8*		ug/L	*50.00*		*104*	*52.1-217*			10/06/2023	
Surrogate: Toluene-d8	*52.8*		ug/L	*50.00*		*106*	*55.4-196*			10/06/2023	
Matrix Spike (B3J0910-MS1)	**Source: 2309377-08**										

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike (B3J0910-MS1)	**Source: 2309377-08**										
1,1,1,2-Tetrachloroethane	2990	67	ug/kg dry	3359	ND	89.1	70-130			10/06/2023	
1,1,1-Trichloroethane	3540	67	ug/kg dry	3359	ND	105	70-130			10/06/2023	
1,1,2,2-Tetrachloroethane	3650	67	ug/kg dry	3359	ND	109	70-130			10/06/2023	
1,1,2-Trichloroethane	3530	67	ug/kg dry	3359	ND	105	70-130			10/06/2023	
1,1,2-Trichlorotrifluoroethane	3320	67	ug/kg dry	3359	ND	99.0	70-130			10/06/2023	
1,1-Dichloroethane	3550	67	ug/kg dry	3359	ND	106	70-130			10/06/2023	
1,1-Dichloroethylene	3300	67	ug/kg dry	3359	ND	98.2	70-130			10/06/2023	
1,2,3-Trichlorobenzene	3440	340	ug/kg dry	3359	ND	102	70-130			10/06/2023	
1,2,3-Trichloropropane	3410	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
1,2,3-Trimethylbenzene	3450	67	ug/kg dry	3359	ND	103	70-130			10/06/2023	
1,2,4-Trichlorobenzene	3370	340	ug/kg dry	3359	ND	100	70-130			10/06/2023	
1,2,4-Trimethylbenzene	3510	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
1,2-Dibromo-3-chloropropane	2930	340	ug/kg dry	3359	ND	87.2	70-130			10/06/2023	
1,2-Dibromoethane	3490	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
1,2-Dichlorobenzene	3420	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
1,2-Dichloroethane	3600	67	ug/kg dry	3359	ND	107	70-130			10/06/2023	
1,2-Dichloropropane	3610	67	ug/kg dry	3359	ND	107	70-130			10/06/2023	
1,3,5-Trimethylbenzene	3550	67	ug/kg dry	3359	ND	106	70-130			10/06/2023	
1,3-Dichlorobenzene	3520	67	ug/kg dry	3359	ND	105	70-130			10/06/2023	
1,4-Dichlorobenzene	3460	67	ug/kg dry	3359	ND	103	70-130			10/06/2023	
2,2,4-Trimethylpentane	3640	340	ug/kg dry	3359	ND	108	70-130			10/06/2023	
2-Butanone (MEK)	3830	340	ug/kg dry	3359	ND	114	70-130			10/06/2023	
2-Methylnaphthalene	3270	340	ug/kg dry	3359	ND	97.2	70-130			10/06/2023	
2-Propanone (acetone)	4450	1300	ug/kg dry	3359	ND	133	70-130			10/06/2023	A04, A06, A11
4-Methyl-2-pentanone (MIBK)	3210	340	ug/kg dry	3359	ND	95.6	70-130			10/06/2023	
Acrylonitrile	3780	340	ug/kg dry	3359	ND	112	70-130			10/06/2023	
Benzene	3500	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
Bromochloromethane	3370	67	ug/kg dry	3359	ND	100	70-130			10/06/2023	
Bromodichloromethane	3030	67	ug/kg dry	3359	ND	90.2	70-130			10/06/2023	
Bromoform	2800	67	ug/kg dry	3359	ND	83.4	70-130			10/06/2023	
Bromomethane	3560	270	ug/kg dry	3359	ND	106	70-130			10/06/2023	
Carbon disulfide	2960	67	ug/kg dry	3359	ND	88.1	70-130			10/06/2023	
Carbon tetrachloride	3390	67	ug/kg dry	3359	ND	101	70-130			10/06/2023	
Chlorobenzene	3430	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
Chloroethane	3580	340	ug/kg dry	3359	ND	106	70-130			10/06/2023	
Chloroform	3560	67	ug/kg dry	3359	ND	106	70-130			10/06/2023	
Chloromethane	3700	340	ug/kg dry	3359	ND	110	70-130			10/06/2023	
cis-1,2-Dichloroethylene	3410	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
cis-1,3-Dichloropropylene	3150	67	ug/kg dry	3359	ND	93.8	70-130			10/06/2023	
Cyclohexane	3670	340	ug/kg dry	3359	ND	109	70-130			10/06/2023	
Dibromochloromethane	2830	67	ug/kg dry	3359	ND	84.3	70-130			10/06/2023	
Dibromomethane	3490	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
Dichlorodifluoromethane	3510	340	ug/kg dry	3359	ND	104	70-130			10/06/2023	A06, A11
Diethyl ether	3600	270	ug/kg dry	3359	ND	107	70-130			10/06/2023	
Diisopropyl Ether	3550	340	ug/kg dry	3359	ND	106	70-130			10/06/2023	
Ethylbenzene	3410	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
Ethyltertiarybutylether	3540	340	ug/kg dry	3359	ND	105	70-130			10/06/2023	
Hexachloroethane	2670	340	ug/kg dry	3359	ND	79.5	70-130			10/06/2023	
Hexane	3740	67	ug/kg dry	3359	ND	111	70-130			10/06/2023	
Isopropylbenzene	3470	67	ug/kg dry	3359	ND	103	70-130			10/06/2023	
m & p - Xylene	7090	130	ug/kg dry	6718	ND	106	70-130			10/06/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike (B3J0910-MS1)	**Source: 2309377-08**										
Methylcyclopentane	3650	67	ug/kg dry	3359	ND	109	70-130			10/06/2023	
Methylene chloride	3430	130	ug/kg dry	3359	ND	102	70-130			10/06/2023	
Methyltertiarybutylether	3100	67	ug/kg dry	3359	ND	92.2	70-130			10/06/2023	
Naphthalene	3540	340	ug/kg dry	3359	ND	105	70-130			10/06/2023	
n-Butylbenzene	3590	67	ug/kg dry	3359	ND	107	70-130			10/06/2023	
n-Heptane	4140	67	ug/kg dry	3359	ND	123	70-130			10/06/2023	
n-Propylbenzene	3560	67	ug/kg dry	3359	ND	106	70-130			10/06/2023	
o-Xylene	3610	67	ug/kg dry	3359	ND	107	70-130			10/06/2023	
sec-Butylbenzene	3490	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
Styrene	3500	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
tert-Butylbenzene	3500	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
tertiary Butyl Alcohol	25000	3400	ug/kg dry	16800	ND	149	70-130			10/06/2023	A04, A06, A11
tertiaryAmylmethylether	3580	340	ug/kg dry	3359	ND	107	70-130			10/06/2023	
Tetrachloroethylene	3380	67	ug/kg dry	3359	ND	101	70-130			10/06/2023	
Tetrahydrofuran	3600	340	ug/kg dry	3359	ND	107	70-130			10/06/2023	
Toluene	3410	67	ug/kg dry	3359	ND	101	70-130			10/06/2023	
trans-1,2-Dichloroethylene	3510	67	ug/kg dry	3359	ND	104	70-130			10/06/2023	
trans-1,3-Dichloropropylene	3150	67	ug/kg dry	3359	ND	93.6	70-130			10/06/2023	
Trichloroethylene	3310	67	ug/kg dry	3359	ND	98.5	70-130			10/06/2023	
Trichlorofluoromethane	3430	67	ug/kg dry	3359	ND	102	70-130			10/06/2023	
Vinyl chloride	3470	67	ug/kg dry	3359	ND	103	70-130			10/06/2023	
Surrogate: Bromofluorobenzene	*67.4*		ug/kg dry	*59.98*		*112*	*40.3-194*			10/06/2023	
Surrogate: Dibromofluoromethane	*71.5*		ug/kg dry	*59.98*		*119*	*52.1-217*			10/06/2023	
Surrogate: Toluene-d8	*68.2*		ug/kg dry	*59.98*		*114*	*55.4-196*			10/06/2023	
Matrix Spike Dup (B3J0910-MSD1)	**Source: 2309377-08**										
1,1,1,2-Tetrachloroethane	3240	67	ug/kg dry	3359	ND	96.3	70-130	7.84	30	10/06/2023	
1,1,1-Trichloroethane	3690	67	ug/kg dry	3359	ND	110	70-130	4.26	30	10/06/2023	
1,1,2,2-Tetrachloroethane	3960	67	ug/kg dry	3359	ND	118	70-130	7.98	30	10/06/2023	
1,1,2-Trichloroethane	3700	67	ug/kg dry	3359	ND	110	70-130	4.77	30	10/06/2023	
1,1,2-Trichlorotrifluoroethane	3340	67	ug/kg dry	3359	ND	99.6	70-130	0.597	30	10/06/2023	
1,1-Dichloroethane	3500	67	ug/kg dry	3359	ND	104	70-130	1.31	30	10/06/2023	
1,1-Dichloroethylene	3220	67	ug/kg dry	3359	ND	95.8	70-130	2.41	30	10/06/2023	
1,2,3-Trichlorobenzene	3700	340	ug/kg dry	3359	ND	110	70-130	7.49	30	10/06/2023	
1,2,3-Trichloropropane	3670	67	ug/kg dry	3359	ND	109	70-130	7.18	30	10/06/2023	
1,2,3-Trimethylbenzene	3690	67	ug/kg dry	3359	ND	110	70-130	6.55	30	10/06/2023	
1,2,4-Trichlorobenzene	3650	340	ug/kg dry	3359	ND	109	70-130	8.03	30	10/06/2023	
1,2,4-Trimethylbenzene	3790	67	ug/kg dry	3359	ND	113	70-130	7.84	30	10/06/2023	
1,2-Dibromo-3-chloropropane	3260	340	ug/kg dry	3359	ND	97.1	70-130	10.7	30	10/06/2023	
1,2-Dibromoethane	3680	67	ug/kg dry	3359	ND	110	70-130	5.26	30	10/06/2023	
1,2-Dichlorobenzene	3690	67	ug/kg dry	3359	ND	110	70-130	7.69	30	10/06/2023	
1,2-Dichloroethane	3580	67	ug/kg dry	3359	ND	107	70-130	0.593	30	10/06/2023	
1,2-Dichloropropane	3650	67	ug/kg dry	3359	ND	109	70-130	1.23	30	10/06/2023	
1,3,5-Trimethylbenzene	3800	67	ug/kg dry	3359	ND	113	70-130	6.92	30	10/06/2023	
1,3-Dichlorobenzene	3790	67	ug/kg dry	3359	ND	113	70-130	7.33	30	10/06/2023	
1,4-Dichlorobenzene	3670	67	ug/kg dry	3359	ND	109	70-130	5.95	30	10/06/2023	
2,2,4-Trimethylpentane	3600	340	ug/kg dry	3359	ND	107	70-130	1.02	30	10/06/2023	
2-Butanone (MEK)	3860	340	ug/kg dry	3359	ND	115	70-130	0.759	30	10/06/2023	
2-Methylnaphthalene	3600	340	ug/kg dry	3359	ND	107	70-130	9.78	30	10/06/2023	
2-Propanone (acetone)	4860	1300	ug/kg dry	3359	ND	145	70-130	8.80	30	10/06/2023	A04, A06, A11
4-Methyl-2-pentanone (MIBK)	3330	340	ug/kg dry	3359	ND	99.0	70-130	3.49	30	10/06/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0910 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike Dup (B3J0910-MSD1)	**Source: 2309377-08**										
Acrylonitrile	3680	340	ug/kg dry	3359	ND	110	70-130	2.60	30	10/06/2023	
Benzene	3510	67	ug/kg dry	3359	ND	104	70-130	0.322	30	10/06/2023	
Bromochloromethane	3430	67	ug/kg dry	3359	ND	102	70-130	1.73	30	10/06/2023	
Bromodichloromethane	3070	67	ug/kg dry	3359	ND	91.4	70-130	1.37	30	10/06/2023	
Bromoform	2970	67	ug/kg dry	3359	ND	88.5	70-130	5.99	30	10/06/2023	
Bromomethane	3620	270	ug/kg dry	3359	ND	108	70-130	1.57	30	10/06/2023	
Carbon disulfide	3020	67	ug/kg dry	3359	ND	89.8	70-130	1.93	30	10/06/2023	
Carbon tetrachloride	3490	67	ug/kg dry	3359	ND	104	70-130	2.85	30	10/06/2023	
Chlorobenzene	3580	67	ug/kg dry	3359	ND	107	70-130	4.21	30	10/06/2023	
Chloroethane	3500	340	ug/kg dry	3359	ND	104	70-130	2.01	30	10/06/2023	
Chloroform	3470	67	ug/kg dry	3359	ND	103	70-130	2.55	30	10/06/2023	
Chloromethane	3590	340	ug/kg dry	3359	ND	107	70-130	3.12	30	10/06/2023	
cis-1,2-Dichloroethylene	3390	67	ug/kg dry	3359	ND	101	70-130	0.582	30	10/06/2023	
cis-1,3-Dichloropropylene	3260	67	ug/kg dry	3359	ND	97.1	70-130	3.41	30	10/06/2023	
Cyclohexane	3530	340	ug/kg dry	3359	ND	105	70-130	3.86	30	10/06/2023	
Dibromochloromethane	3040	67	ug/kg dry	3359	ND	90.6	70-130	7.21	30	10/06/2023	
Dibromomethane	3550	67	ug/kg dry	3359	ND	106	70-130	1.57	30	10/06/2023	
Dichlorodifluoromethane	3450	340	ug/kg dry	3359	ND	103	70-130	1.65	30	10/06/2023	A06, A11
Diethyl ether	3560	270	ug/kg dry	3359	ND	106	70-130	1.24	30	10/06/2023	
Diisopropyl Ether	3480	340	ug/kg dry	3359	ND	104	70-130	2.10	30	10/06/2023	
Ethylbenzene	3610	67	ug/kg dry	3359	ND	107	70-130	5.62	30	10/06/2023	
Ethyltertiarybutylether	3450	340	ug/kg dry	3359	ND	103	70-130	2.56	30	10/06/2023	
Hexachloroethane	2940	340	ug/kg dry	3359	ND	87.5	70-130	9.50	30	10/06/2023	
Hexane	3610	67	ug/kg dry	3359	ND	107	70-130	3.57	30	10/06/2023	
Isopropylbenzene	3720	67	ug/kg dry	3359	ND	111	70-130	6.88	30	10/06/2023	
m & p - Xylene	7460	130	ug/kg dry	6718	ND	111	70-130	5.08	30	10/06/2023	
Methylcyclopentane	3600	67	ug/kg dry	3359	ND	107	70-130	1.28	30	10/06/2023	
Methylene chloride	3360	130	ug/kg dry	3359	ND	100	70-130	2.04	30	10/06/2023	
Methyltertiarybutylether	3020	67	ug/kg dry	3359	ND	89.9	70-130	2.53	30	10/06/2023	
Naphthalene	3860	340	ug/kg dry	3359	ND	115	70-130	8.91	30	10/06/2023	
n-Butylbenzene	3840	67	ug/kg dry	3359	ND	114	70-130	6.93	30	10/06/2023	
n-Heptane	4130	67	ug/kg dry	3359	ND	123	70-130	0.250	30	10/06/2023	
n-Propylbenzene	3840	67	ug/kg dry	3359	ND	114	70-130	7.54	30	10/06/2023	
o-Xylene	3760	67	ug/kg dry	3359	ND	112	70-130	4.06	30	10/06/2023	
sec-Butylbenzene	3790	67	ug/kg dry	3359	ND	113	70-130	8.22	30	10/06/2023	
Styrene	3680	67	ug/kg dry	3359	ND	109	70-130	4.90	30	10/06/2023	
tert-Butylbenzene	3770	67	ug/kg dry	3359	ND	112	70-130	7.36	30	10/06/2023	
tertiary Butyl Alcohol	26200	3400	ug/kg dry	16800	ND	156	70-130	4.39	30	10/06/2023	A04, A06, A11
tertiaryAmylmethylether	3650	340	ug/kg dry	3359	ND	109	70-130	1.97	30	10/06/2023	
Tetrachloroethylene	3590	67	ug/kg dry	3359	ND	107	70-130	5.99	30	10/06/2023	
Tetrahydrofuran	3450	340	ug/kg dry	3359	ND	103	70-130	4.22	30	10/06/2023	
Toluene	3570	67	ug/kg dry	3359	ND	106	70-130	4.79	30	10/06/2023	
trans-1,2-Dichloroethylene	3410	67	ug/kg dry	3359	ND	101	70-130	2.88	30	10/06/2023	
trans-1,3-Dichloropropylene	3190	67	ug/kg dry	3359	ND	94.9	70-130	1.37	30	10/06/2023	
Trichloroethylene	3290	67	ug/kg dry	3359	ND	97.9	70-130	0.582	30	10/06/2023	
Trichlorofluoromethane	3430	67	ug/kg dry	3359	ND	102	70-130	0.00207	30	10/06/2023	
Vinyl chloride	3500	67	ug/kg dry	3359	ND	104	70-130	0.597	30	10/06/2023	
Surrogate: Bromofluorobenzene	*74.6*		ug/kg dry	*59.98*		*124*	*40.3-194*			10/06/2023	
Surrogate: Dibromofluoromethane	*73.9*		ug/kg dry	*59.98*		*123*	*52.1-217*			10/06/2023	
Surrogate: Toluene-d8	*73.8*		ug/kg dry	*59.98*		*123*	*55.4-196*			10/06/2023	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY**

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/06/2023**							
Blank (B3J0911-BLK1)											
1,1,1,2-Tetrachloroethane	ND	50	ug/kg wet							10/07/2023	
1,1,1-Trichloroethane	ND	50	ug/kg wet							10/07/2023	
1,1,2,2-Tetrachloroethane	ND	50	ug/kg wet							10/07/2023	
1,1,2-Trichloroethane	ND	50	ug/kg wet							10/07/2023	
1,1,2-Trichlorotrifluoroethane	ND	50	ug/kg wet							10/07/2023	
1,1-Dichloroethane	ND	50	ug/kg wet							10/07/2023	
1,1-Dichloroethylene	ND	50	ug/kg wet							10/07/2023	
1,2,3-Trichlorobenzene	ND	250	ug/kg wet							10/07/2023	
1,2,3-Trichloropropane	ND	50	ug/kg wet							10/07/2023	
1,2,3-Trimethylbenzene	ND	50	ug/kg wet							10/07/2023	
1,2,4-Trichlorobenzene	ND	250	ug/kg wet							10/07/2023	
1,2,4-Trimethylbenzene	ND	50	ug/kg wet							10/07/2023	
1,2-Dibromo-3-chloropropane	ND	250	ug/kg wet							10/07/2023	
1,2-Dibromoethane	ND	50	ug/kg wet							10/07/2023	
1,2-Dichlorobenzene	ND	50	ug/kg wet							10/07/2023	
1,2-Dichloroethane	ND	50	ug/kg wet							10/07/2023	
1,2-Dichloropropane	ND	50	ug/kg wet							10/07/2023	
1,3,5-Trimethylbenzene	ND	50	ug/kg wet							10/07/2023	
1,3-Dichlorobenzene	ND	50	ug/kg wet							10/07/2023	
1,4-Dichlorobenzene	ND	50	ug/kg wet							10/07/2023	
2,2,4-Trimethylpentane	ND	250	ug/kg wet							10/07/2023	
2-Butanone (MEK)	ND	250	ug/kg wet							10/07/2023	
2-Methylnaphthalene	ND	250	ug/kg wet							10/07/2023	
2-Propanone (acetone)	ND	1000	ug/kg wet							10/07/2023	
4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg wet							10/07/2023	
Acrylonitrile	ND	250	ug/kg wet							10/07/2023	
Benzene	ND	50	ug/kg wet							10/07/2023	
Bromochloromethane	ND	50	ug/kg wet							10/07/2023	
Bromodichloromethane	ND	50	ug/kg wet							10/07/2023	
Bromoform	ND	50	ug/kg wet							10/07/2023	
Bromomethane	ND	200	ug/kg wet							10/07/2023	
Carbon disulfide	ND	50	ug/kg wet							10/07/2023	
Carbon tetrachloride	ND	50	ug/kg wet							10/07/2023	
Chlorobenzene	ND	50	ug/kg wet							10/07/2023	
Chloroethane	ND	250	ug/kg wet							10/07/2023	
Chloroform	ND	50	ug/kg wet							10/07/2023	
Chloromethane	ND	250	ug/kg wet							10/07/2023	
cis-1,2-Dichloroethylene	ND	50	ug/kg wet							10/07/2023	
cis-1,3-Dichloropropylene	ND	50	ug/kg wet							10/07/2023	
Cyclohexane	ND	250	ug/kg wet							10/07/2023	
Dibromochloromethane	ND	50	ug/kg wet							10/07/2023	
Dibromomethane	ND	50	ug/kg wet							10/07/2023	
Dichlorodifluoromethane	ND	250	ug/kg wet							10/07/2023	
Diethyl ether	ND	200	ug/kg wet							10/07/2023	
Diisopropyl Ether	ND	250	ug/kg wet							10/07/2023	
Ethylbenzene	ND	50	ug/kg wet							10/07/2023	
Ethyltertiarybutylether	ND	250	ug/kg wet							10/07/2023	
Hexachloroethane	ND	250	ug/kg wet							10/07/2023	
Hexane	ND	50	ug/kg wet							10/07/2023	
Isopropylbenzene	ND	50	ug/kg wet							10/07/2023	
m & p - Xylene	ND	100	ug/kg wet							10/07/2023	
Methylcyclopentane	ND	50	ug/kg wet							10/07/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/06/2023**							
Blank (B3J0911-BLK1)											
Methylene chloride	ND	100	ug/kg wet							10/07/2023	
Methyltertiarybutylether	ND	50	ug/kg wet							10/07/2023	
Naphthalene	ND	250	ug/kg wet							10/07/2023	
n-Butylbenzene	ND	50	ug/kg wet							10/07/2023	
n-Heptane	ND	50	ug/kg wet							10/07/2023	
n-Propylbenzene	ND	50	ug/kg wet							10/07/2023	
o-Xylene	ND	50	ug/kg wet							10/07/2023	
sec-Butylbenzene	ND	50	ug/kg wet							10/07/2023	
Styrene	ND	50	ug/kg wet							10/07/2023	
tert-Butylbenzene	ND	50	ug/kg wet							10/07/2023	
tertiary Butyl Alcohol	ND	2500	ug/kg wet							10/07/2023	
tertiaryAmylmethylether	ND	250	ug/kg wet							10/07/2023	
Tetrachloroethylene	ND	50	ug/kg wet							10/07/2023	
Tetrahydrofuran	ND	250	ug/kg wet							10/07/2023	
Toluene	ND	50	ug/kg wet							10/07/2023	
trans-1,2-Dichloroethylene	ND	50	ug/kg wet							10/07/2023	
trans-1,3-Dichloropropylene	ND	50	ug/kg wet							10/07/2023	
Trichloroethylene	ND	50	ug/kg wet							10/07/2023	
Trichlorofluoromethane	ND	50	ug/kg wet							10/07/2023	
Vinyl chloride	ND	50	ug/kg wet							10/07/2023	
Surrogate: Bromofluorobenzene	*50.4*		ug/L	*50.00*		*101*	*40.3-194*			10/07/2023	
Surrogate: Dibromofluoromethane	*49.6*		ug/L	*50.00*		*99.3*	*52.1-217*			10/07/2023	
Surrogate: Toluene-d8	*50.6*		ug/L	*50.00*		*101*	*55.4-196*			10/07/2023	
LCS (B3J0911-BS1)											
1,1,1,2-Tetrachloroethane	2530	50	ug/kg wet	2500		101	70-130			10/06/2023	
1,1,1-Trichloroethane	2830	50	ug/kg wet	2500		113	70-130			10/06/2023	
1,1,2,2-Tetrachloroethane	2900	50	ug/kg wet	2500		116	70-130			10/06/2023	
1,1,2-Trichloroethane	2940	50	ug/kg wet	2500		117	70-130			10/06/2023	
1,1,2-Trichlorotrifluoroethane	2540	50	ug/kg wet	2500		102	70-130			10/06/2023	
1,1-Dichloroethane	2680	50	ug/kg wet	2500		107	70-130			10/06/2023	
1,1-Dichloroethylene	2490	50	ug/kg wet	2500		99.5	70-130			10/06/2023	
1,2,3-Trichlorobenzene	2860	250	ug/kg wet	2500		114	70-130			10/06/2023	
1,2,3-Trichloropropane	2850	50	ug/kg wet	2500		114	70-130			10/06/2023	
1,2,3-Trimethylbenzene	2830	50	ug/kg wet	2500		113	70-130			10/06/2023	
1,2,4-Trichlorobenzene	2810	250	ug/kg wet	2500		112	70-130			10/06/2023	
1,2,4-Trimethylbenzene	2870	50	ug/kg wet	2500		115	70-130			10/06/2023	
1,2-Dibromo-3-chloropropane	2460	250	ug/kg wet	2500		98.5	70-130			10/06/2023	
1,2-Dibromoethane	2920	50	ug/kg wet	2500		117	70-130			10/06/2023	
1,2-Dichlorobenzene	2850	50	ug/kg wet	2500		114	70-130			10/06/2023	
1,2-Dichloroethane	2760	50	ug/kg wet	2500		111	70-130			10/06/2023	
1,2-Dichloropropane	2790	50	ug/kg wet	2500		112	70-130			10/06/2023	
1,3,5-Trimethylbenzene	2910	50	ug/kg wet	2500		116	70-130			10/06/2023	
1,3-Dichlorobenzene	2870	50	ug/kg wet	2500		115	70-130			10/06/2023	
1,4-Dichlorobenzene	2810	50	ug/kg wet	2500		112	70-130			10/06/2023	
2,2,4-Trimethylpentane	2870	250	ug/kg wet	2500		115	70-130			10/06/2023	
2-Butanone (MEK)	2720	250	ug/kg wet	2500		109	70-130			10/06/2023	
2-Methylnaphthalene	2600	250	ug/kg wet	2500		104	70-130			10/06/2023	
2-Propanone (acetone)	3320	1000	ug/kg wet	2500		133	70-130			10/06/2023	A09, A11
4-Methyl-2-pentanone (MIBK)	2550	250	ug/kg wet	2500		102	70-130			10/06/2023	
Acrylonitrile	2730	250	ug/kg wet	2500		109	70-130			10/06/2023	
Benzene	2730	50	ug/kg wet	2500		109	70-130			10/06/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/06/2023**							
LCS (B3J0911-BS1)											
Bromochloromethane	2640	50	ug/kg wet	2500		106	70-130			10/06/2023	
Bromodichloromethane	2440	50	ug/kg wet	2500		97.4	70-130			10/06/2023	
Bromoform	2400	50	ug/kg wet	2500		96.0	70-130			10/06/2023	
Bromomethane	2770	200	ug/kg wet	2500		111	70-130			10/06/2023	
Carbon disulfide	2340	50	ug/kg wet	2500		93.6	70-130			10/06/2023	
Carbon tetrachloride	2700	50	ug/kg wet	2500		108	70-130			10/06/2023	
Chlorobenzene	2800	50	ug/kg wet	2500		112	70-130			10/06/2023	
Chloroethane	2740	250	ug/kg wet	2500		110	70-130			10/06/2023	
Chloroform	2670	50	ug/kg wet	2500		107	70-130			10/06/2023	
Chloromethane	2760	250	ug/kg wet	2500		110	70-130			10/06/2023	
cis-1,2-Dichloroethylene	2620	50	ug/kg wet	2500		105	70-130			10/06/2023	
cis-1,3-Dichloropropylene	2520	50	ug/kg wet	2500		101	70-130			10/06/2023	
Cyclohexane	2680	250	ug/kg wet	2500		107	70-130			10/06/2023	
Dibromochloromethane	2430	50	ug/kg wet	2500		97.0	70-130			10/06/2023	
Dibromomethane	2720	50	ug/kg wet	2500		109	70-130			10/06/2023	
Dichlorodifluoromethane	2570	250	ug/kg wet	2500		103	70-130			10/06/2023	A11
Diethyl ether	2770	200	ug/kg wet	2500		111	70-130			10/06/2023	
Diisopropyl Ether	2690	250	ug/kg wet	2500		107	70-130			10/06/2023	
Ethylbenzene	2820	50	ug/kg wet	2500		113	70-130			10/06/2023	
Ethyltertiarybutylether	2710	250	ug/kg wet	2500		108	70-130			10/06/2023	
Hexachloroethane	2310	250	ug/kg wet	2500		92.5	70-130			10/06/2023	
Hexane	2760	50	ug/kg wet	2500		110	70-130			10/06/2023	
Isopropylbenzene	2870	50	ug/kg wet	2500		115	70-130			10/06/2023	
m & p - Xylene	5780	100	ug/kg wet	5000		116	70-130			10/06/2023	
Methylcyclopentane	2790	50	ug/kg wet	2500		112	70-130			10/06/2023	
Methylene chloride	2570	100	ug/kg wet	2500		103	70-130			10/06/2023	
Methyltertiarybutylether	2360	50	ug/kg wet	2500		94.5	70-130			10/06/2023	
Naphthalene	2870	250	ug/kg wet	2500		115	70-130			10/06/2023	
n-Butylbenzene	2930	50	ug/kg wet	2500		117	70-130			10/06/2023	
n-Heptane	3190	50	ug/kg wet	2500		127	70-130			10/06/2023	
n-Propylbenzene	2950	50	ug/kg wet	2500		118	70-130			10/06/2023	
o-Xylene	2880	50	ug/kg wet	2500		115	70-130			10/06/2023	
sec-Butylbenzene	2890	50	ug/kg wet	2500		116	70-130			10/06/2023	
Styrene	2870	50	ug/kg wet	2500		115	70-130			10/06/2023	
tert-Butylbenzene	2900	50	ug/kg wet	2500		116	70-130			10/06/2023	
tertiary Butyl Alcohol	18900	2500	ug/kg wet	12500		151	70-130			10/06/2023	A06, A09, A11
tertiaryAmylmethylether	2850	250	ug/kg wet	2500		114	70-130			10/06/2023	
Tetrachloroethylene	2820	50	ug/kg wet	2500		113	70-130			10/06/2023	
Tetrahydrofuran	2500	250	ug/kg wet	2500		100	70-130			10/06/2023	
Toluene	2760	50	ug/kg wet	2500		110	70-130			10/06/2023	
trans-1,2-Dichloroethylene	2640	50	ug/kg wet	2500		106	70-130			10/06/2023	
trans-1,3-Dichloropropylene	2540	50	ug/kg wet	2500		102	70-130			10/06/2023	
Trichloroethylene	2730	50	ug/kg wet	2500		109	70-130			10/06/2023	
Trichlorofluoromethane	2640	50	ug/kg wet	2500		106	70-130			10/06/2023	
Vinyl chloride	2700	50	ug/kg wet	2500		108	70-130			10/06/2023	
Surrogate: Bromofluorobenzene	*52.8*		ug/L	*50.00*		*106*	*40.3-194*			10/06/2023	
Surrogate: Dibromofluoromethane	*51.7*		ug/L	*50.00*		*103*	*52.1-217*			10/06/2023	
Surrogate: Toluene-d8	*52.7*		ug/L	*50.00*		*105*	*55.4-196*			10/06/2023	
Matrix Spike (B3J0911-MS1)	**Source: 2309377-01**										
1,1,1,2-Tetrachloroethane	3190	67	ug/kg dry	3333	ND	95.8	70-130			10/07/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike (B3J0911-MS1)	**Source: 2309377-01**										
1,1,1-Trichloroethane	3510	67	ug/kg dry	3333	ND	105	70-130			10/07/2023	
1,1,2,2-Tetrachloroethane	3490	67	ug/kg dry	3333	ND	105	70-130			10/07/2023	
1,1,2-Trichloroethane	3740	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
1,1,2-Trichlorotrifluoroethane	3330	67	ug/kg dry	3333	ND	99.9	70-130			10/07/2023	
1,1-Dichloroethane	3520	67	ug/kg dry	3333	ND	106	70-130			10/07/2023	
1,1-Dichloroethylene	3230	67	ug/kg dry	3333	ND	96.9	70-130			10/07/2023	
1,2,3-Trichlorobenzene	3710	330	ug/kg dry	3333	ND	111	70-130			10/07/2023	
1,2,3-Trichloropropane	3820	67	ug/kg dry	3333	ND	115	70-130			10/07/2023	
1,2,3-Trimethylbenzene	3660	67	ug/kg dry	3333	ND	110	70-130			10/07/2023	
1,2,4-Trichlorobenzene	3560	330	ug/kg dry	3333	ND	107	70-130			10/07/2023	
1,2,4-Trimethylbenzene	3730	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
1,2-Dibromo-3-chloropropane	3300	330	ug/kg dry	3333	ND	98.9	70-130			10/07/2023	
1,2-Dibromoethane	3730	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
1,2-Dichlorobenzene	3710	67	ug/kg dry	3333	ND	111	70-130			10/07/2023	
1,2-Dichloroethane	3620	67	ug/kg dry	3333	ND	109	70-130			10/07/2023	
1,2-Dichloropropane	3570	67	ug/kg dry	3333	ND	107	70-130			10/07/2023	
1,3,5-Trimethylbenzene	3790	67	ug/kg dry	3333	ND	114	70-130			10/07/2023	
1,3-Dichlorobenzene	3760	67	ug/kg dry	3333	ND	113	70-130			10/07/2023	
1,4-Dichlorobenzene	3680	67	ug/kg dry	3333	ND	110	70-130			10/07/2023	
2,2,4-Trimethylpentane	3600	330	ug/kg dry	3333	ND	108	70-130			10/07/2023	
2-Butanone (MEK)	4070	330	ug/kg dry	3333	ND	122	70-130			10/07/2023	
2-Methylnaphthalene	3470	330	ug/kg dry	3333	ND	104	70-130			10/07/2023	
2-Propanone (acetone)	5020	1300	ug/kg dry	3333	ND	151	70-130			10/07/2023	A04, A11
4-Methyl-2-pentanone (MIBK)	3530	330	ug/kg dry	3333	ND	106	70-130			10/07/2023	
Acrylonitrile	3890	330	ug/kg dry	3333	ND	117	70-130			10/07/2023	
Benzene	3490	67	ug/kg dry	3333	ND	105	70-130			10/07/2023	
Bromochloromethane	3360	67	ug/kg dry	3333	ND	101	70-130			10/07/2023	
Bromodichloromethane	3020	67	ug/kg dry	3333	ND	90.6	70-130			10/07/2023	
Bromoform	2960	67	ug/kg dry	3333	ND	88.8	70-130			10/07/2023	
Bromomethane	3400	270	ug/kg dry	3333	ND	102	70-130			10/07/2023	
Carbon disulfide	2850	67	ug/kg dry	3333	ND	85.5	70-130			10/07/2023	
Carbon tetrachloride	3300	67	ug/kg dry	3333	ND	99.0	70-130			10/07/2023	
Chlorobenzene	3610	67	ug/kg dry	3333	ND	108	70-130			10/07/2023	
Chloroethane	3250	330	ug/kg dry	3333	ND	97.5	70-130			10/07/2023	
Chloroform	3450	67	ug/kg dry	3333	ND	103	70-130			10/07/2023	
Chloromethane	3610	330	ug/kg dry	3333	ND	108	70-130			10/07/2023	
cis-1,2-Dichloroethylene	3430	67	ug/kg dry	3333	ND	103	70-130			10/07/2023	
cis-1,3-Dichloropropylene	3150	67	ug/kg dry	3333	ND	94.4	70-130			10/07/2023	
Cyclohexane	3480	330	ug/kg dry	3333	ND	104	70-130			10/07/2023	
Dibromochloromethane	3030	67	ug/kg dry	3333	ND	90.8	70-130			10/07/2023	
Dibromomethane	3500	67	ug/kg dry	3333	ND	105	70-130			10/07/2023	
Dichlorodifluoromethane	3390	330	ug/kg dry	3333	ND	102	70-130			10/07/2023	A11
Diethyl ether	3650	270	ug/kg dry	3333	ND	109	70-130			10/07/2023	
Diisopropyl Ether	3590	330	ug/kg dry	3333	ND	108	70-130			10/07/2023	
Ethylbenzene	3620	67	ug/kg dry	3333	ND	109	70-130			10/07/2023	
Ethyltertiarybutylether	3580	330	ug/kg dry	3333	ND	108	70-130			10/07/2023	
Hexachloroethane	2910	330	ug/kg dry	3333	ND	87.5	70-130			10/07/2023	
Hexane	3490	67	ug/kg dry	3333	ND	105	70-130			10/07/2023	
Isopropylbenzene	3760	67	ug/kg dry	3333	ND	113	70-130			10/07/2023	
m & p - Xylene	7360	130	ug/kg dry	6665	ND	110	70-130			10/07/2023	
Methylcyclopentane	3720	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
Methylene chloride	3380	130	ug/kg dry	3333	ND	101	70-130			10/07/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike (B3J0911-MS1)	**Source: 2309377-01**										
Methyltertiarybutylether	3140	67	ug/kg dry	3333	ND	94.4	70-130			10/07/2023	
Naphthalene	3830	330	ug/kg dry	3333	ND	115	70-130			10/07/2023	
n-Butylbenzene	3780	67	ug/kg dry	3333	ND	113	70-130			10/07/2023	
n-Heptane	3870	67	ug/kg dry	3333	ND	116	70-130			10/07/2023	
n-Propylbenzene	3840	67	ug/kg dry	3333	ND	115	70-130			10/07/2023	
o-Xylene	3740	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
sec-Butylbenzene	3760	67	ug/kg dry	3333	ND	113	70-130			10/07/2023	
Styrene	3710	67	ug/kg dry	3333	ND	111	70-130			10/07/2023	
tert-Butylbenzene	3740	67	ug/kg dry	3333	ND	112	70-130			10/07/2023	
tertiary Butyl Alcohol	28900	3300	ug/kg dry	16660	ND	174	70-130			10/07/2023	A04, A06, A11
tertiaryAmylmethylether	3690	330	ug/kg dry	3333	ND	111	70-130			10/07/2023	
Tetrachloroethylene	3630	67	ug/kg dry	3333	ND	109	70-130			10/07/2023	
Tetrahydrofuran	3710	330	ug/kg dry	3333	ND	111	70-130			10/07/2023	
Toluene	3590	67	ug/kg dry	3333	ND	108	70-130			10/07/2023	
trans-1,2-Dichloroethylene	3430	67	ug/kg dry	3333	ND	103	70-130			10/07/2023	
trans-1,3-Dichloropropylene	3140	67	ug/kg dry	3333	ND	94.2	70-130			10/07/2023	
Trichloroethylene	3690	67	ug/kg dry	3333	ND	111	70-130			10/07/2023	
Trichlorofluoromethane	3390	67	ug/kg dry	3333	ND	102	70-130			10/07/2023	
Vinyl chloride	3440	67	ug/kg dry	3333	ND	103	70-130			10/07/2023	
Surrogate: Bromofluorobenzene	*80.8*		ug/kg dry	*58.33*		*139*	*40.3-194*			10/07/2023	
Surrogate: Dibromofluoromethane	*76.5*		ug/kg dry	*58.33*		*131*	*52.1-217*			10/07/2023	
Surrogate: Toluene-d8	*81.4*		ug/kg dry	*58.33*		*140*	*55.4-196*			10/07/2023	
Matrix Spike Dup (B3J0911-MSD1)	**Source: 2309377-01**										
1,1,1,2-Tetrachloroethane	2980	67	ug/kg dry	3333	ND	89.5	70-130	6.82	30	10/07/2023	
1,1,1-Trichloroethane	3630	67	ug/kg dry	3333	ND	109	70-130	3.22	30	10/07/2023	
1,1,2,2-Tetrachloroethane	2870	67	ug/kg dry	3333	ND	86.1	70-130	19.5	30	10/07/2023	
1,1,2-Trichloroethane	3470	67	ug/kg dry	3333	ND	104	70-130	7.68	30	10/07/2023	
1,1,2-Trichlorotrifluoroethane	3390	67	ug/kg dry	3333	ND	102	70-130	1.90	30	10/07/2023	
1,1-Dichloroethane	3760	67	ug/kg dry	3333	ND	113	70-130	6.33	30	10/07/2023	
1,1-Dichloroethylene	3420	67	ug/kg dry	3333	ND	103	70-130	5.57	30	10/07/2023	
1,2,3-Trichlorobenzene	3400	330	ug/kg dry	3333	ND	102	70-130	8.68	30	10/07/2023	
1,2,3-Trichloropropane	3340	67	ug/kg dry	3333	ND	100	70-130	13.4	30	10/07/2023	
1,2,3-Trimethylbenzene	3370	67	ug/kg dry	3333	ND	101	70-130	8.29	30	10/07/2023	
1,2,4-Trichlorobenzene	3270	330	ug/kg dry	3333	ND	98.2	70-130	8.44	30	10/07/2023	
1,2,4-Trimethylbenzene	3450	67	ug/kg dry	3333	ND	103	70-130	7.84	30	10/07/2023	
1,2-Dibromo-3-chloropropane	2990	330	ug/kg dry	3333	ND	89.8	70-130	9.72	30	10/07/2023	
1,2-Dibromoethane	3450	67	ug/kg dry	3333	ND	103	70-130	7.88	30	10/07/2023	
1,2-Dichlorobenzene	3360	67	ug/kg dry	3333	ND	101	70-130	9.98	30	10/07/2023	
1,2-Dichloroethane	3580	67	ug/kg dry	3333	ND	107	70-130	1.06	30	10/07/2023	
1,2-Dichloropropane	3510	67	ug/kg dry	3333	ND	105	70-130	1.70	30	10/07/2023	
1,3,5-Trimethylbenzene	3510	67	ug/kg dry	3333	ND	105	70-130	7.81	30	10/07/2023	
1,3-Dichlorobenzene	3410	67	ug/kg dry	3333	ND	102	70-130	9.70	30	10/07/2023	
1,4-Dichlorobenzene	3360	67	ug/kg dry	3333	ND	101	70-130	8.98	30	10/07/2023	
2,2,4-Trimethylpentane	3370	330	ug/kg dry	3333	ND	101	70-130	6.52	30	10/07/2023	
2-Butanone (MEK)	3500	330	ug/kg dry	3333	ND	105	70-130	15.2	30	10/07/2023	
2-Methylnaphthalene	3290	330	ug/kg dry	3333	ND	98.6	70-130	5.38	30	10/07/2023	
2-Propanone (acetone)	4910	1300	ug/kg dry	3333	ND	147	70-130	2.36	30	10/07/2023	A04, A11
4-Methyl-2-pentanone (MIBK)	3240	330	ug/kg dry	3333	ND	97.2	70-130	8.59	30	10/07/2023	
Acrylonitrile	4010	330	ug/kg dry	3333	ND	120	70-130	2.97	30	10/07/2023	
Benzene	3420	67	ug/kg dry	3333	ND	103	70-130	2.16	30	10/07/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0911 - Method: 5035				**Prepared: 10/04/2023**							
Matrix Spike Dup (B3J0911-MSD1)	**Source: 2309377-01**										
Bromochloromethane	3460	67	ug/kg dry	3333	ND	104	70-130	2.83	30	10/07/2023	
Bromodichloromethane	3040	67	ug/kg dry	3333	ND	91.3	70-130	0.805	30	10/07/2023	
Bromoform	2800	67	ug/kg dry	3333	ND	84.1	70-130	5.39	30	10/07/2023	
Bromomethane	3730	270	ug/kg dry	3333	ND	112	70-130	9.07	30	10/07/2023	
Carbon disulfide	3160	67	ug/kg dry	3333	ND	94.9	70-130	10.4	30	10/07/2023	
Carbon tetrachloride	3390	67	ug/kg dry	3333	ND	102	70-130	2.66	30	10/07/2023	
Chlorobenzene	3390	67	ug/kg dry	3333	ND	102	70-130	6.24	30	10/07/2023	
Chloroethane	3720	330	ug/kg dry	3333	ND	112	70-130	13.6	30	10/07/2023	
Chloroform	3700	67	ug/kg dry	3333	ND	111	70-130	7.08	30	10/07/2023	
Chloromethane	3800	330	ug/kg dry	3333	ND	114	70-130	5.01	30	10/07/2023	
cis-1,2-Dichloroethylene	3620	67	ug/kg dry	3333	ND	109	70-130	5.24	30	10/07/2023	
cis-1,3-Dichloropropylene	3100	67	ug/kg dry	3333	ND	92.9	70-130	1.55	30	10/07/2023	
Cyclohexane	3560	330	ug/kg dry	3333	ND	107	70-130	2.34	30	10/07/2023	
Dibromochloromethane	2820	67	ug/kg dry	3333	ND	84.7	70-130	7.03	30	10/07/2023	
Dibromomethane	3510	67	ug/kg dry	3333	ND	105	70-130	0.355	30	10/07/2023	
Dichlorodifluoromethane	3570	330	ug/kg dry	3333	ND	107	70-130	5.13	30	10/07/2023	A11
Diethyl ether	3710	270	ug/kg dry	3333	ND	111	70-130	1.79	30	10/07/2023	
Diisopropyl Ether	3560	330	ug/kg dry	3333	ND	107	70-130	0.829	30	10/07/2023	
Ethylbenzene	3410	67	ug/kg dry	3333	ND	102	70-130	5.80	30	10/07/2023	
Ethyltertiarybutylether	3590	330	ug/kg dry	3333	ND	108	70-130	0.230	30	10/07/2023	
Hexachloroethane	2700	330	ug/kg dry	3333	ND	81.0	70-130	7.62	30	10/07/2023	
Hexane	3450	67	ug/kg dry	3333	ND	104	70-130	1.15	30	10/07/2023	
Isopropylbenzene	3410	67	ug/kg dry	3333	ND	102	70-130	9.80	30	10/07/2023	
m & p - Xylene	7070	130	ug/kg dry	6665	ND	106	70-130	4.03	30	10/07/2023	
Methylcyclopentane	3700	67	ug/kg dry	3333	ND	111	70-130	0.465	30	10/07/2023	
Methylene chloride	3590	130	ug/kg dry	3333	ND	108	70-130	5.90	30	10/07/2023	
Methyltertiarybutylether	3020	67	ug/kg dry	3333	ND	90.8	70-130	3.89	30	10/07/2023	
Naphthalene	3500	330	ug/kg dry	3333	ND	105	70-130	8.89	30	10/07/2023	
n-Butylbenzene	3510	67	ug/kg dry	3333	ND	105	70-130	7.49	30	10/07/2023	
n-Heptane	3600	67	ug/kg dry	3333	ND	108	70-130	7.22	30	10/07/2023	
n-Propylbenzene	3490	67	ug/kg dry	3333	ND	105	70-130	9.53	30	10/07/2023	
o-Xylene	3560	67	ug/kg dry	3333	ND	107	70-130	4.72	30	10/07/2023	
sec-Butylbenzene	3470	67	ug/kg dry	3333	ND	104	70-130	7.94	30	10/07/2023	
Styrene	3530	67	ug/kg dry	3333	ND	106	70-130	5.04	30	10/07/2023	
tert-Butylbenzene	3460	67	ug/kg dry	3333	ND	104	70-130	7.84	30	10/07/2023	
tertiary Butyl Alcohol	28400	3300	ug/kg dry	16660	ND	171	70-130	1.73	30	10/07/2023	A04, A06, A11
tertiaryAmylmethylether	3510	330	ug/kg dry	3333	ND	105	70-130	4.95	30	10/07/2023	
Tetrachloroethylene	3350	67	ug/kg dry	3333	ND	100	70-130	8.07	30	10/07/2023	
Tetrahydrofuran	3620	330	ug/kg dry	3333	ND	109	70-130	2.41	30	10/07/2023	
Toluene	3360	67	ug/kg dry	3333	ND	101	70-130	6.52	30	10/07/2023	
trans-1,2-Dichloroethylene	3610	67	ug/kg dry	3333	ND	108	70-130	5.27	30	10/07/2023	
trans-1,3-Dichloropropylene	3060	67	ug/kg dry	3333	ND	91.8	70-130	2.54	30	10/07/2023	
Trichloroethylene	3710	67	ug/kg dry	3333	ND	111	70-130	0.622	30	10/07/2023	
Trichlorofluoromethane	3610	67	ug/kg dry	3333	ND	108	70-130	6.36	30	10/07/2023	
Vinyl chloride	3690	67	ug/kg dry	3333	ND	111	70-130	7.01	30	10/07/2023	
Surrogate: Bromofluorobenzene	*73.8*		ug/kg dry	*58.33*		*126*	*40.3-194*			10/07/2023	
Surrogate: Dibromofluoromethane	*78.3*		ug/kg dry	*58.33*		*134*	*52.1-217*			10/07/2023	
Surrogate: Toluene-d8	*76.5*		ug/kg dry	*58.33*		*131*	*55.4-196*			10/07/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/09/2023**							
Blank (B3J1028-BLK1)											
1,1,1,2-Tetrachloroethane	ND	50	ug/kg wet							10/09/2023	
1,1,1-Trichloroethane	ND	50	ug/kg wet							10/09/2023	
1,1,2,2-Tetrachloroethane	ND	50	ug/kg wet							10/09/2023	
1,1,2-Trichloroethane	ND	50	ug/kg wet							10/09/2023	
1,1,2-Trichlorotrifluoroethane	ND	50	ug/kg wet							10/09/2023	
1,1-Dichloroethane	ND	50	ug/kg wet							10/09/2023	
1,1-Dichloroethylene	ND	50	ug/kg wet							10/09/2023	
1,2,3-Trichlorobenzene	ND	250	ug/kg wet							10/09/2023	
1,2,3-Trichloropropane	ND	50	ug/kg wet							10/09/2023	
1,2,3-Trimethylbenzene	ND	50	ug/kg wet							10/09/2023	
1,2,4-Trichlorobenzene	ND	250	ug/kg wet							10/09/2023	
1,2,4-Trimethylbenzene	ND	50	ug/kg wet							10/09/2023	
1,2-Dibromo-3-chloropropane	ND	250	ug/kg wet							10/09/2023	
1,2-Dibromoethane	ND	50	ug/kg wet							10/09/2023	
1,2-Dichlorobenzene	ND	50	ug/kg wet							10/09/2023	
1,2-Dichloroethane	ND	50	ug/kg wet							10/09/2023	
1,2-Dichloropropane	ND	50	ug/kg wet							10/09/2023	
1,3,5-Trimethylbenzene	ND	50	ug/kg wet							10/09/2023	
1,3-Dichlorobenzene	ND	50	ug/kg wet							10/09/2023	
1,4-Dichlorobenzene	ND	50	ug/kg wet							10/09/2023	
2,2,4-Trimethylpentane	ND	250	ug/kg wet							10/09/2023	
2-Butanone (MEK)	ND	250	ug/kg wet							10/09/2023	
2-Methylnaphthalene	ND	250	ug/kg wet							10/09/2023	
2-Propanone (acetone)	ND	1000	ug/kg wet							10/09/2023	
4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg wet							10/09/2023	
Acrylonitrile	ND	250	ug/kg wet							10/09/2023	
Benzene	ND	50	ug/kg wet							10/09/2023	
Bromochloromethane	ND	50	ug/kg wet							10/09/2023	
Bromodichloromethane	ND	50	ug/kg wet							10/09/2023	
Bromoform	ND	50	ug/kg wet							10/09/2023	
Bromomethane	ND	200	ug/kg wet							10/09/2023	
Carbon disulfide	ND	50	ug/kg wet							10/09/2023	
Carbon tetrachloride	ND	50	ug/kg wet							10/09/2023	
Chlorobenzene	ND	50	ug/kg wet							10/09/2023	
Chloroethane	ND	250	ug/kg wet							10/09/2023	
Chloroform	ND	50	ug/kg wet							10/09/2023	
Chloromethane	ND	250	ug/kg wet							10/09/2023	
cis-1,2-Dichloroethylene	ND	50	ug/kg wet							10/09/2023	
cis-1,3-Dichloropropylene	ND	50	ug/kg wet							10/09/2023	
Cyclohexane	ND	250	ug/kg wet							10/09/2023	
Dibromochloromethane	ND	50	ug/kg wet							10/09/2023	
Dibromomethane	ND	50	ug/kg wet							10/09/2023	
Dichlorodifluoromethane	ND	250	ug/kg wet							10/09/2023	
Diethyl ether	ND	200	ug/kg wet							10/09/2023	
Diisopropyl Ether	ND	250	ug/kg wet							10/09/2023	
Ethylbenzene	ND	50	ug/kg wet							10/09/2023	
Ethyltertiarybutylether	ND	250	ug/kg wet							10/09/2023	
Hexachloroethane	ND	250	ug/kg wet							10/09/2023	
Hexane	ND	50	ug/kg wet							10/09/2023	
Isopropylbenzene	ND	50	ug/kg wet							10/09/2023	
m & p - Xylene	ND	100	ug/kg wet							10/09/2023	
Methylcyclopentane	ND	50	ug/kg wet							10/09/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/09/2023**							
Blank (B3J1028-BLK1)											
Methylene chloride	ND	100	ug/kg wet							10/09/2023	
Methyltertiarybutylether	ND	50	ug/kg wet							10/09/2023	
Naphthalene	ND	250	ug/kg wet							10/09/2023	
n-Butylbenzene	ND	50	ug/kg wet							10/09/2023	
n-Heptane	ND	50	ug/kg wet							10/09/2023	
n-Propylbenzene	ND	50	ug/kg wet							10/09/2023	
o-Xylene	ND	50	ug/kg wet							10/09/2023	
sec-Butylbenzene	ND	50	ug/kg wet							10/09/2023	
Styrene	ND	50	ug/kg wet							10/09/2023	
tert-Butylbenzene	ND	50	ug/kg wet							10/09/2023	
tertiary Butyl Alcohol	ND	2500	ug/kg wet							10/09/2023	
tertiaryAmylmethylether	ND	250	ug/kg wet							10/09/2023	
Tetrachloroethylene	ND	50	ug/kg wet							10/09/2023	
Tetrahydrofuran	ND	250	ug/kg wet							10/09/2023	
Toluene	ND	50	ug/kg wet							10/09/2023	
trans-1,2-Dichloroethylene	ND	50	ug/kg wet							10/09/2023	
trans-1,3-Dichloropropylene	ND	50	ug/kg wet							10/09/2023	
Trichloroethylene	ND	50	ug/kg wet							10/09/2023	
Trichlorofluoromethane	ND	50	ug/kg wet							10/09/2023	
Vinyl chloride	ND	50	ug/kg wet							10/09/2023	
Surrogate: Bromofluorobenzene	*49.3*		ug/L	*50.00*		*98.5*	*40-194*			10/09/2023	
Surrogate: Dibromofluoromethane	*47.9*		ug/L	*50.00*		*95.7*	*52-217*			10/09/2023	
Surrogate: Toluene-d8	*48.9*		ug/L	*50.00*		*97.7*	*55-196*			10/09/2023	
LCS (B3J1028-BS1)											
1,1,1,2-Tetrachloroethane	2520	50	ug/kg wet	2500		101	70-130			10/09/2023	
1,1,1-Trichloroethane	2910	50	ug/kg wet	2500		116	70-130			10/09/2023	
1,1,2,2-Tetrachloroethane	3010	50	ug/kg wet	2500		121	70-130			10/09/2023	
1,1,2-Trichloroethane	2790	50	ug/kg wet	2500		112	70-130			10/09/2023	
1,1,2-Trichlorotrifluoroethane	2680	50	ug/kg wet	2500		107	70-130			10/09/2023	
1,1-Dichloroethane	2780	50	ug/kg wet	2500		111	70-130			10/09/2023	
1,1-Dichloroethylene	2570	50	ug/kg wet	2500		103	70-130			10/09/2023	
1,2,3-Trichlorobenzene	2860	250	ug/kg wet	2500		114	70-130			10/09/2023	
1,2,3-Trichloropropane	2800	50	ug/kg wet	2500		112	70-130			10/09/2023	
1,2,3-Trimethylbenzene	2730	50	ug/kg wet	2500		109	70-130			10/09/2023	
1,2,4-Trichlorobenzene	2740	250	ug/kg wet	2500		110	70-130			10/09/2023	
1,2,4-Trimethylbenzene	2790	50	ug/kg wet	2500		112	70-130			10/09/2023	
1,2-Dibromo-3-chloropropane	2650	250	ug/kg wet	2500		106	70-130			10/09/2023	
1,2-Dibromoethane	2780	50	ug/kg wet	2500		111	70-130			10/09/2023	
1,2-Dichlorobenzene	2720	50	ug/kg wet	2500		109	70-130			10/09/2023	
1,2-Dichloroethane	2760	50	ug/kg wet	2500		110	70-130			10/09/2023	
1,2-Dichloropropane	2800	50	ug/kg wet	2500		112	70-130			10/09/2023	
1,3,5-Trimethylbenzene	2830	50	ug/kg wet	2500		113	70-130			10/09/2023	
1,3-Dichlorobenzene	2840	50	ug/kg wet	2500		114	70-130			10/09/2023	
1,4-Dichlorobenzene	2760	50	ug/kg wet	2500		111	70-130			10/09/2023	
2,2,4-Trimethylpentane	2950	250	ug/kg wet	2500		118	70-130			10/09/2023	
2-Butanone (MEK)	3270	250	ug/kg wet	2500		131	70-130			10/09/2023	A09
2-Methylnaphthalene	2600	250	ug/kg wet	2500		104	70-130			10/09/2023	
2-Propanone (acetone)	4020	1000	ug/kg wet	2500		161	70-130			10/09/2023	A09, A11
4-Methyl-2-pentanone (MIBK)	2720	250	ug/kg wet	2500		109	70-130			10/09/2023	
Acrylonitrile	3010	250	ug/kg wet	2500		120	70-130			10/09/2023	
Benzene	2740	50	ug/kg wet	2500		110	70-130			10/09/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/09/2023**							
LCS (B3J1028-BS1)											
Bromochloromethane	2660	50	ug/kg wet	2500		106	70-130			10/09/2023	
Bromodichloromethane	2550	50	ug/kg wet	2500		102	70-130			10/09/2023	
Bromoform	2450	50	ug/kg wet	2500		98.1	70-130			10/09/2023	
Bromomethane	2840	200	ug/kg wet	2500		113	70-130			10/09/2023	
Carbon disulfide	2610	50	ug/kg wet	2500		104	70-130			10/09/2023	
Carbon tetrachloride	2820	50	ug/kg wet	2500		113	70-130			10/09/2023	
Chlorobenzene	2690	50	ug/kg wet	2500		108	70-130			10/09/2023	
Chloroethane	2780	250	ug/kg wet	2500		111	70-130			10/09/2023	
Chloroform	2770	50	ug/kg wet	2500		111	70-130			10/09/2023	
Chloromethane	2780	250	ug/kg wet	2500		111	70-130			10/09/2023	
cis-1,2-Dichloroethylene	2680	50	ug/kg wet	2500		107	70-130			10/09/2023	
cis-1,3-Dichloropropylene	2690	50	ug/kg wet	2500		108	70-130			10/09/2023	
Cyclohexane	2720	250	ug/kg wet	2500		109	70-130			10/09/2023	
Dibromochloromethane	2480	50	ug/kg wet	2500		99.2	70-130			10/09/2023	
Dibromomethane	2750	50	ug/kg wet	2500		110	70-130			10/09/2023	
Dichlorodifluoromethane	2640	250	ug/kg wet	2500		106	70-130			10/09/2023	A11
Diethyl ether	2790	200	ug/kg wet	2500		112	70-130			10/09/2023	
Diisopropyl Ether	2840	250	ug/kg wet	2500		114	70-130			10/09/2023	
Ethylbenzene	2710	50	ug/kg wet	2500		108	70-130			10/09/2023	
Ethyltertiarybutylether	2950	250	ug/kg wet	2500		118	70-130			10/09/2023	
Hexachloroethane	2490	250	ug/kg wet	2500		99.7	70-130			10/09/2023	
Hexane	3000	50	ug/kg wet	2500		120	70-130			10/09/2023	
Isopropylbenzene	2810	50	ug/kg wet	2500		112	70-130			10/09/2023	
m & p - Xylene	5510	100	ug/kg wet	5000		110	70-130			10/09/2023	
Methylcyclopentane	2890	50	ug/kg wet	2500		116	70-130			10/09/2023	
Methylene chloride	2650	100	ug/kg wet	2500		106	70-130			10/09/2023	
Methyltertiarybutylether	2610	50	ug/kg wet	2500		104	70-130			10/09/2023	
Naphthalene	2790	250	ug/kg wet	2500		111	70-130			10/09/2023	
n-Butylbenzene	2930	50	ug/kg wet	2500		117	70-130			10/09/2023	
n-Heptane	3400	50	ug/kg wet	2500		136	70-130			10/09/2023	A06, A09
n-Propylbenzene	2890	50	ug/kg wet	2500		116	70-130			10/09/2023	
o-Xylene	2780	50	ug/kg wet	2500		111	70-130			10/09/2023	
sec-Butylbenzene	2860	50	ug/kg wet	2500		114	70-130			10/09/2023	
Styrene	2750	50	ug/kg wet	2500		110	70-130			10/09/2023	
tert-Butylbenzene	2850	50	ug/kg wet	2500		114	70-130			10/09/2023	
tertiary Butyl Alcohol	21100	2500	ug/kg wet	12500		169	70-130			10/09/2023	A06, A09, A11
tertiaryAmylmethylether	2980	250	ug/kg wet	2500		119	70-130			10/09/2023	
Tetrachloroethylene	2700	50	ug/kg wet	2500		108	70-130			10/09/2023	
Tetrahydrofuran	2850	250	ug/kg wet	2500		114	70-130			10/09/2023	
Toluene	2630	50	ug/kg wet	2500		105	70-130			10/09/2023	
trans-1,2-Dichloroethylene	2790	50	ug/kg wet	2500		111	70-130			10/09/2023	
trans-1,3-Dichloropropylene	2690	50	ug/kg wet	2500		108	70-130			10/09/2023	
Trichloroethylene	2610	50	ug/kg wet	2500		104	70-130			10/09/2023	
Trichlorofluoromethane	2720	50	ug/kg wet	2500		109	70-130			10/09/2023	
Vinyl chloride	2770	50	ug/kg wet	2500		111	70-130			10/09/2023	
Surrogate: Bromofluorobenzene	*51.9*		ug/L	*50.00*		*104*	*40-194*			10/09/2023	
Surrogate: Dibromofluoromethane	*52.6*		ug/L	*50.00*		*105*	*52-217*			10/09/2023	
Surrogate: Toluene-d8	*51.1*		ug/L	*50.00*		*102*	*55-196*			10/09/2023	
Matrix Spike (B3J1028-MS1)	**Source: 2310037-01**										
1,1,1,2-Tetrachloroethane	2790	57	ug/kg dry	2854	ND	97.8	70-130			10/09/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/06/2023**							
Matrix Spike (B3J1028-MS1)	**Source: 2310037-01**										
1,1,1-Trichloroethane	3240	57	ug/kg dry	2854	ND	114	70-130			10/09/2023	
1,1,2,2-Tetrachloroethane	3430	57	ug/kg dry	2854	ND	120	70-130			10/09/2023	
1,1,2-Trichloroethane	3230	57	ug/kg dry	2854	ND	113	70-130			10/09/2023	
1,1,2-Trichlorotrifluoroethane	3140	57	ug/kg dry	2854	ND	110	70-130			10/09/2023	
1,1-Dichloroethane	3250	57	ug/kg dry	2854	ND	114	70-130			10/09/2023	
1,1-Dichloroethylene	2960	57	ug/kg dry	2854	ND	104	70-130			10/09/2023	
1,2,3-Trichlorobenzene	3200	290	ug/kg dry	2854	ND	112	70-130			10/09/2023	
1,2,3-Trichloropropane	3190	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
1,2,3-Trimethylbenzene	3190	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
1,2,4-Trichlorobenzene	3170	290	ug/kg dry	2854	ND	111	70-130			10/09/2023	
1,2,4-Trimethylbenzene	3280	57	ug/kg dry	2854	ND	115	70-130			10/09/2023	
1,2-Dibromo-3-chloropropane	2840	290	ug/kg dry	2854	ND	99.5	70-130			10/09/2023	
1,2-Dibromoethane	3240	57	ug/kg dry	2854	ND	113	70-130			10/09/2023	
1,2-Dichlorobenzene	3220	57	ug/kg dry	2854	ND	113	70-130			10/09/2023	
1,2-Dichloroethane	3140	57	ug/kg dry	2854	ND	110	70-130			10/09/2023	
1,2-Dichloropropane	3250	57	ug/kg dry	2854	ND	114	70-130			10/09/2023	
1,3,5-Trimethylbenzene	3320	57	ug/kg dry	2854	ND	116	70-130			10/09/2023	
1,3-Dichlorobenzene	3280	57	ug/kg dry	2854	ND	115	70-130			10/09/2023	
1,4-Dichlorobenzene	3220	57	ug/kg dry	2854	ND	113	70-130			10/09/2023	
2,2,4-Trimethylpentane	3270	290	ug/kg dry	2854	ND	115	70-130			10/09/2023	
2-Butanone (MEK)	3760	290	ug/kg dry	2854	ND	132	70-130			10/09/2023	A04
2-Methylnaphthalene	3040	290	ug/kg dry	2854	ND	107	70-130			10/09/2023	
2-Propanone (acetone)	4620	1100	ug/kg dry	2854	ND	162	70-130			10/09/2023	A04, A11
4-Methyl-2-pentanone (MIBK)	3060	290	ug/kg dry	2854	ND	107	70-130			10/09/2023	
Acrylonitrile	3550	290	ug/kg dry	2854	ND	124	70-130			10/09/2023	
Benzene	3150	57	ug/kg dry	2854	ND	110	70-130			10/09/2023	
Bromochloromethane	3090	57	ug/kg dry	2854	ND	108	70-130			10/09/2023	
Bromodichloromethane	2720	57	ug/kg dry	2854	ND	95.4	70-130			10/09/2023	
Bromoform	2580	57	ug/kg dry	2854	ND	90.3	70-130			10/09/2023	
Bromomethane	3280	230	ug/kg dry	2854	ND	115	70-130			10/09/2023	
Carbon disulfide	2700	57	ug/kg dry	2854	ND	94.7	70-130			10/09/2023	
Carbon tetrachloride	3040	57	ug/kg dry	2854	ND	106	70-130			10/09/2023	
Chlorobenzene	3180	57	ug/kg dry	2854	ND	111	70-130			10/09/2023	
Chloroethane	3220	290	ug/kg dry	2854	ND	113	70-130			10/09/2023	
Chloroform	3240	57	ug/kg dry	2854	ND	114	70-130			10/09/2023	
Chloromethane	3310	290	ug/kg dry	2854	ND	116	70-130			10/09/2023	
cis-1,2-Dichloroethylene	3180	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
cis-1,3-Dichloropropylene	2930	57	ug/kg dry	2854	ND	103	70-130			10/09/2023	
Cyclohexane	3280	290	ug/kg dry	2854	ND	115	70-130			10/09/2023	
Dibromochloromethane	2610	57	ug/kg dry	2854	ND	91.4	70-130			10/09/2023	
Dibromomethane	3210	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
Dichlorodifluoromethane	3040	290	ug/kg dry	2854	ND	106	70-130			10/09/2023	A11
Diethyl ether	3340	230	ug/kg dry	2854	ND	117	70-130			10/09/2023	
Diisopropyl Ether	3310	290	ug/kg dry	2854	ND	116	70-130			10/09/2023	
Ethylbenzene	3150	57	ug/kg dry	2854	ND	110	70-130			10/09/2023	
Ethyltertiarybutylether	3390	290	ug/kg dry	2854	ND	119	70-130			10/09/2023	
Hexachloroethane	2470	290	ug/kg dry	2854	ND	86.7	70-130			10/09/2023	
Hexane	3370	57	ug/kg dry	2854	ND	118	70-130			10/09/2023	
Isopropylbenzene	3280	57	ug/kg dry	2854	ND	115	70-130			10/09/2023	
m & p - Xylene	6430	110	ug/kg dry	5708	ND	113	70-130			10/09/2023	
Methylcyclopentane	3690	57	ug/kg dry	2854	ND	129	70-130			10/09/2023	
Methylene chloride	3040	110	ug/kg dry	2854	ND	106	70-130			10/09/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/06/2023**							
Matrix Spike (B3J1028-MS1)	**Source: 2310037-01**										
Methyltertiarybutylether	2970	57	ug/kg dry	2854	ND	104	70-130			10/09/2023	
Naphthalene	3320	290	ug/kg dry	2854	ND	116	70-130			10/09/2023	
n-Butylbenzene	3290	57	ug/kg dry	2854	ND	115	70-130			10/09/2023	
n-Heptane	3750	57	ug/kg dry	2854	ND	131	70-130			10/09/2023	A04, A06
n-Propylbenzene	3340	57	ug/kg dry	2854	ND	117	70-130			10/09/2023	
o-Xylene	3250	57	ug/kg dry	2854	ND	114	70-130			10/09/2023	
sec-Butylbenzene	3290	57	ug/kg dry	2854	ND	115	70-130			10/09/2023	
Styrene	3200	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
tert-Butylbenzene	3300	57	ug/kg dry	2854	ND	116	70-130			10/09/2023	
tertiary Butyl Alcohol	24500	2900	ug/kg dry	14270	ND	172	70-130			10/09/2023	A04, A06, A11
tertiaryAmylmethylether	3430	290	ug/kg dry	2854	ND	120	70-130			10/09/2023	
Tetrachloroethylene	3210	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
Tetrahydrofuran	3300	290	ug/kg dry	2854	ND	116	70-130			10/09/2023	
Toluene	3080	57	ug/kg dry	2854	ND	108	70-130			10/09/2023	
trans-1,2-Dichloroethylene	3220	57	ug/kg dry	2854	ND	113	70-130			10/09/2023	
trans-1,3-Dichloropropylene	2890	57	ug/kg dry	2854	ND	101	70-130			10/09/2023	
Trichloroethylene	3040	57	ug/kg dry	2854	ND	107	70-130			10/09/2023	
Trichlorofluoromethane	3160	57	ug/kg dry	2854	ND	111	70-130			10/09/2023	
Vinyl chloride	3190	57	ug/kg dry	2854	ND	112	70-130			10/09/2023	
Surrogate: Bromofluorobenzene	*67.5*		ug/kg dry	*54.39*		*124*	*40-194*			10/09/2023	
Surrogate: Dibromofluoromethane	*67.6*		ug/kg dry	*54.39*		*124*	*52-217*			10/09/2023	
Surrogate: Toluene-d8	*68.2*		ug/kg dry	*54.39*		*125*	*55-196*			10/09/2023	
Matrix Spike Dup (B3J1028-MSD1)	**Source: 2310037-01**										
1,1,1,2-Tetrachloroethane	2620	57	ug/kg dry	2854	ND	91.9	70-130	6.20	30	10/09/2023	
1,1,1-Trichloroethane	3040	57	ug/kg dry	2854	ND	106	70-130	6.42	30	10/09/2023	
1,1,2,2-Tetrachloroethane	3120	57	ug/kg dry	2854	ND	109	70-130	9.63	30	10/09/2023	
1,1,2-Trichloroethane	2990	57	ug/kg dry	2854	ND	105	70-130	7.56	30	10/09/2023	
1,1,2-Trichlorotrifluoroethane	2790	57	ug/kg dry	2854	ND	97.9	70-130	11.7	30	10/09/2023	
1,1-Dichloroethane	3050	57	ug/kg dry	2854	ND	107	70-130	6.63	30	10/09/2023	
1,1-Dichloroethylene	2750	57	ug/kg dry	2854	ND	96.4	70-130	7.28	30	10/09/2023	
1,2,3-Trichlorobenzene	2980	290	ug/kg dry	2854	ND	105	70-130	7.03	30	10/09/2023	
1,2,3-Trichloropropane	2950	57	ug/kg dry	2854	ND	103	70-130	7.99	30	10/09/2023	
1,2,3-Trimethylbenzene	2920	57	ug/kg dry	2854	ND	102	70-130	9.04	30	10/09/2023	
1,2,4-Trichlorobenzene	2900	290	ug/kg dry	2854	ND	102	70-130	8.90	30	10/09/2023	
1,2,4-Trimethylbenzene	2960	57	ug/kg dry	2854	ND	104	70-130	10.2	30	10/09/2023	
1,2-Dibromo-3-chloropropane	2660	290	ug/kg dry	2854	ND	93.4	70-130	6.35	30	10/09/2023	
1,2-Dibromoethane	3000	57	ug/kg dry	2854	ND	105	70-130	7.54	30	10/09/2023	
1,2-Dichlorobenzene	2970	57	ug/kg dry	2854	ND	104	70-130	8.16	30	10/09/2023	
1,2-Dichloroethane	2950	57	ug/kg dry	2854	ND	103	70-130	6.38	30	10/09/2023	
1,2-Dichloropropane	2970	57	ug/kg dry	2854	ND	104	70-130	9.09	30	10/09/2023	
1,3,5-Trimethylbenzene	3050	57	ug/kg dry	2854	ND	107	70-130	8.25	30	10/09/2023	
1,3-Dichlorobenzene	2990	57	ug/kg dry	2854	ND	105	70-130	9.40	30	10/09/2023	
1,4-Dichlorobenzene	2930	57	ug/kg dry	2854	ND	103	70-130	9.60	30	10/09/2023	
2,2,4-Trimethylpentane	2850	290	ug/kg dry	2854	ND	99.9	70-130	13.8	30	10/09/2023	
2-Butanone (MEK)	3560	290	ug/kg dry	2854	ND	125	70-130	5.43	30	10/09/2023	
2-Methylnaphthalene	2840	290	ug/kg dry	2854	ND	99.5	70-130	6.82	30	10/09/2023	
2-Propanone (acetone)	4200	1100	ug/kg dry	2854	ND	147	70-130	9.61	30	10/09/2023	A04, A11
4-Methyl-2-pentanone (MIBK)	2920	290	ug/kg dry	2854	ND	102	70-130	4.86	30	10/09/2023	
Acrylonitrile	3300	290	ug/kg dry	2854	ND	116	70-130	7.30	30	10/09/2023	
Benzene	2910	57	ug/kg dry	2854	ND	102	70-130	7.93	30	10/09/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1028 - Method: 5035				**Prepared: 10/06/2023**							
Matrix Spike Dup (B3J1028-MSD1)	**Source: 2310037-01**										
Bromochloromethane	2920	57	ug/kg dry	2854	ND	102	70-130	5.62	30	10/09/2023	
Bromodichloromethane	2590	57	ug/kg dry	2854	ND	90.9	70-130	4.79	30	10/09/2023	
Bromoform	2510	57	ug/kg dry	2854	ND	87.8	70-130	2.78	30	10/09/2023	
Bromomethane	3100	230	ug/kg dry	2854	ND	109	70-130	5.36	30	10/09/2023	
Carbon disulfide	2600	57	ug/kg dry	2854	ND	91.2	70-130	3.70	30	10/09/2023	
Carbon tetrachloride	2860	57	ug/kg dry	2854	ND	100	70-130	5.83	30	10/09/2023	
Chlorobenzene	2900	57	ug/kg dry	2854	ND	102	70-130	9.07	30	10/09/2023	
Chloroethane	2970	290	ug/kg dry	2854	ND	104	70-130	7.83	30	10/09/2023	
Chloroform	3030	57	ug/kg dry	2854	ND	106	70-130	6.78	30	10/09/2023	
Chloromethane	3030	290	ug/kg dry	2854	ND	106	70-130	8.56	30	10/09/2023	
cis-1,2-Dichloroethylene	2940	57	ug/kg dry	2854	ND	103	70-130	7.86	30	10/09/2023	
cis-1,3-Dichloropropylene	2750	57	ug/kg dry	2854	ND	96.5	70-130	6.16	30	10/09/2023	
Cyclohexane	2920	290	ug/kg dry	2854	ND	102	70-130	11.8	30	10/09/2023	
Dibromochloromethane	2480	57	ug/kg dry	2854	ND	86.8	70-130	5.17	30	10/09/2023	
Dibromomethane	2990	57	ug/kg dry	2854	ND	105	70-130	7.02	30	10/09/2023	
Dichlorodifluoromethane	2820	290	ug/kg dry	2854	ND	98.7	70-130	7.63	30	10/09/2023	A11
Diethyl ether	3140	230	ug/kg dry	2854	ND	110	70-130	6.30	30	10/09/2023	
Diisopropyl Ether	3040	290	ug/kg dry	2854	ND	106	70-130	8.49	30	10/09/2023	
Ethylbenzene	2890	57	ug/kg dry	2854	ND	101	70-130	8.73	30	10/09/2023	
Ethyltertiarybutylether	3200	290	ug/kg dry	2854	ND	112	70-130	5.58	30	10/09/2023	
Hexachloroethane	2380	290	ug/kg dry	2854	ND	83.3	70-130	3.93	30	10/09/2023	
Hexane	2900	57	ug/kg dry	2854	ND	102	70-130	14.9	30	10/09/2023	
Isopropylbenzene	2960	57	ug/kg dry	2854	ND	104	70-130	10.1	30	10/09/2023	
m & p - Xylene	5930	110	ug/kg dry	5708	ND	104	70-130	8.11	30	10/09/2023	
Methylcyclopentane	3060	57	ug/kg dry	2854	ND	107	70-130	18.9	30	10/09/2023	
Methylene chloride	2850	110	ug/kg dry	2854	ND	99.8	70-130	6.43	30	10/09/2023	
Methyltertiarybutylether	2770	57	ug/kg dry	2854	ND	97.2	70-130	6.83	30	10/09/2023	
Naphthalene	3070	290	ug/kg dry	2854	ND	107	70-130	7.77	30	10/09/2023	
n-Butylbenzene	3000	57	ug/kg dry	2854	ND	105	70-130	9.22	30	10/09/2023	
n-Heptane	3090	57	ug/kg dry	2854	ND	108	70-130	19.5	30	10/09/2023	A06
n-Propylbenzene	3030	57	ug/kg dry	2854	ND	106	70-130	9.78	30	10/09/2023	
o-Xylene	2980	57	ug/kg dry	2854	ND	104	70-130	8.79	30	10/09/2023	
sec-Butylbenzene	3010	57	ug/kg dry	2854	ND	105	70-130	9.01	30	10/09/2023	
Styrene	2980	57	ug/kg dry	2854	ND	104	70-130	7.18	30	10/09/2023	
tert-Butylbenzene	3020	57	ug/kg dry	2854	ND	106	70-130	8.64	30	10/09/2023	
tertiary Butyl Alcohol	25000	2900	ug/kg dry	14270	ND	175	70-130	1.75	30	10/09/2023	A04, A06, A11
tertiaryAmylmethylether	3160	290	ug/kg dry	2854	ND	111	70-130	8.27	30	10/09/2023	
Tetrachloroethylene	2910	57	ug/kg dry	2854	ND	102	70-130	9.64	30	10/09/2023	
Tetrahydrofuran	3140	290	ug/kg dry	2854	ND	110	70-130	4.98	30	10/09/2023	
Toluene	2830	57	ug/kg dry	2854	ND	99.2	70-130	8.52	30	10/09/2023	
trans-1,2-Dichloroethylene	2980	57	ug/kg dry	2854	ND	104	70-130	7.89	30	10/09/2023	
trans-1,3-Dichloropropylene	2750	57	ug/kg dry	2854	ND	96.4	70-130	4.95	30	10/09/2023	
Trichloroethylene	2790	57	ug/kg dry	2854	ND	97.9	70-130	8.51	30	10/09/2023	
Trichlorofluoromethane	2900	57	ug/kg dry	2854	ND	102	70-130	8.32	30	10/09/2023	
Vinyl chloride	2980	57	ug/kg dry	2854	ND	104	70-130	6.95	30	10/09/2023	
Surrogate: Bromofluorobenzene	*60.8*		ug/kg dry	*54.39*		*112*	*40-194*			10/09/2023	
Surrogate: Dibromofluoromethane	*63.5*		ug/kg dry	*54.39*		*117*	*52-217*			10/09/2023	
Surrogate: Toluene-d8	*62.8*		ug/kg dry	*54.39*		*115*	*55-196*			10/09/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0516 - Method: 3545 Soil SVOC				**Prepared: 10/05/2023**							
Blank (B3J0516-BLK1)											
2-Methylnaphthalene	ND	250	ug/kg wet							10/17/2023	
Acenaphthene	ND	100	ug/kg wet							10/17/2023	
Acenaphthylene	ND	100	ug/kg wet							10/17/2023	
Anthracene	ND	100	ug/kg wet							10/17/2023	
Benz[a]anthracene	ND	100	ug/kg wet							10/17/2023	
Benzo[a]pyrene	ND	200	ug/kg wet							10/17/2023	
Benzo[b]fluoranthene	ND	200	ug/kg wet							10/17/2023	
Benzo[g,h,i]perylene	ND	200	ug/kg wet							10/17/2023	
Benzo[k]fluoranthene	ND	200	ug/kg wet							10/17/2023	
Chrysene	ND	100	ug/kg wet							10/17/2023	
Dibenz[a,h]anthracene	ND	200	ug/kg wet							10/17/2023	
Fluoranthene	ND	100	ug/kg wet							10/17/2023	
Fluorene	ND	100	ug/kg wet							10/17/2023	
Indeno(1,2,3-c,d)pyrene	ND	200	ug/kg wet							10/17/2023	
Naphthalene	ND	100	ug/kg wet							10/17/2023	
Phenanthrene	ND	100	ug/kg wet							10/17/2023	
Pyrene	ND	100	ug/kg wet							10/17/2023	
Surrogate: 2-Fluorobiphenyl	*1580*		ug/kg wet	*2000*		*79.2*	*36-133*			10/17/2023	
Surrogate: Nitrobenzene-d5	*1240*		ug/kg wet	*2000*		*61.8*	*26-123*			10/17/2023	
Surrogate: p-Terphenyl-d14	*2100*		ug/kg wet	*2000*		*105*	*36-142*			10/17/2023	
LCS (B3J0516-BS1)											
2-Methylnaphthalene	1670	250	ug/kg wet	2000		83.6	38.6-94.3			10/17/2023	
Acenaphthene	1710	100	ug/kg wet	2000		85.6	43.6-101.5			10/17/2023	
Acenaphthylene	1790	100	ug/kg wet	2000		89.3	46.3-108.7			10/17/2023	
Anthracene	1760	100	ug/kg wet	2000		88.1	48.9-106.4			10/17/2023	
Benz[a]anthracene	1810	100	ug/kg wet	2000		90.7	53.1-107.9			10/17/2023	
Benzo[a]pyrene	1670	200	ug/kg wet	2000		83.4	47.5-113.5			10/17/2023	
Benzo[b]fluoranthene	1660	200	ug/kg wet	2000		83.2	49.8-112.3			10/17/2023	
Benzo[g,h,i]perylene	1580	200	ug/kg wet	2000		79.2	25.7-120.5			10/17/2023	
Benzo[k]fluoranthene	1680	200	ug/kg wet	2000		84.1	49.6-112.4			10/17/2023	
Chrysene	1800	100	ug/kg wet	2000		90.1	54-109.3			10/17/2023	
Dibenz[a,h]anthracene	1450	200	ug/kg wet	2000		72.7	32.7-127			10/17/2023	
Fluoranthene	1840	100	ug/kg wet	2000		91.8	48.8-112.4			10/17/2023	
Fluorene	1870	100	ug/kg wet	2000		93.7	45.9-103.5			10/17/2023	
Indeno(1,2,3-c,d)pyrene	1560	200	ug/kg wet	2000		78.1	36.6-126.1			10/17/2023	
Naphthalene	1430	100	ug/kg wet	2000		71.6	36.2-91.2			10/17/2023	
Phenanthrene	1730	100	ug/kg wet	2000		86.7	50.9-105.9			10/17/2023	
Pyrene	1770	100	ug/kg wet	2000		88.4	46.2-113.7			10/17/2023	
Surrogate: 2-Fluorobiphenyl	*1870*		ug/kg wet	*2000*		*93.5*	*36-133*			10/17/2023	
Surrogate: Nitrobenzene-d5	*1570*		ug/kg wet	*2000*		*78.3*	*26-123*			10/17/2023	
Surrogate: p-Terphenyl-d14	*1940*		ug/kg wet	*2000*		*97.0*	*36-142*			10/17/2023	
LCS Dup (B3J0516-BSD1)											
2-Methylnaphthalene	1320	250	ug/kg wet	2000		66.1	38.6-94.3	23.4	28.1	10/17/2023	
Acenaphthene	1340	100	ug/kg wet	2000		67.0	43.6-101.5	24.5	26.1	10/17/2023	
Acenaphthylene	1420	100	ug/kg wet	2000		70.8	46.3-108.7	23.1	27.3	10/17/2023	
Anthracene	1720	100	ug/kg wet	2000		85.9	48.9-106.4	2.55	24.2	10/17/2023	
Benz[a]anthracene	1690	100	ug/kg wet	2000		84.3	53.1-107.9	7.25	24.5	10/17/2023	
Benzo[a]pyrene	1610	200	ug/kg wet	2000		80.5	47.5-113.5	3.63	25.9	10/17/2023	
Benzo[b]fluoranthene	1550	200	ug/kg wet	2000		77.7	49.8-112.3	6.92	26.1	10/17/2023	
Benzo[g,h,i]perylene	1460	200	ug/kg wet	2000		72.9	25.7-120.5	8.37	37.8	10/17/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0516 - Method: 3545 Soil SVOC				**Prepared: 10/05/2023**							
LCS Dup (B3J0516-BSD1)											
Benzo[k]fluoranthene	1550	200	ug/kg wet	2000		77.4	49.6-112.4	8.37	25.7	10/17/2023	
Chrysene	1640	100	ug/kg wet	2000		82.2	54-109.3	9.21	24.4	10/17/2023	
Dibenz[a,h]anthracene	1350	200	ug/kg wet	2000		67.6	32.7-127	7.31	40.3	10/17/2023	
Fluoranthene	1730	100	ug/kg wet	2000		86.5	48.8-112.4	5.97	27.9	10/17/2023	
Fluorene	1580	100	ug/kg wet	2000		78.9	45.9-103.5	17.2	25.2	10/17/2023	
Indeno(1,2,3-c,d)pyrene	1430	200	ug/kg wet	2000		71.6	36.6-126.1	8.58	34.3	10/17/2023	
Naphthalene	1250	100	ug/kg wet	2000		62.7	36.2-91.2	13.3	27.4	10/17/2023	
Phenanthrene	1660	100	ug/kg wet	2000		83.1	50.9-105.9	4.23	23.3	10/17/2023	
Pyrene	1690	100	ug/kg wet	2000		84.3	46.2-113.7	4.73	27.9	10/17/2023	
Surrogate: 2-Fluorobiphenyl	*1450*		ug/kg wet	*2000*		*72.7*	*36-133*			10/17/2023	
Surrogate: Nitrobenzene-d5	*1220*		ug/kg wet	*2000*		*61.1*	*26-123*			10/17/2023	
Surrogate: p-Terphenyl-d14	*1840*		ug/kg wet	*2000*		*92.2*	*36-142*			10/17/2023	
Matrix Spike (B3J0516-MS1)	**Source: 2309377-08**										
2-Methylnaphthalene	2160	290	ug/kg dry	2289	ND	94.5	31.4-113.4			10/17/2023	
Acenaphthene	1940	110	ug/kg dry	2289	ND	84.8	41.1-113.8			10/17/2023	
Acenaphthylene	2090	110	ug/kg dry	2289	ND	91.2	46.8-117.3			10/17/2023	
Anthracene	2040	110	ug/kg dry	2289	ND	88.9	33.6-131			10/17/2023	
Benz[a]anthracene	2150	110	ug/kg dry	2289	ND	94.0	32.3-137.5			10/17/2023	
Benzo[a]pyrene	2000	230	ug/kg dry	2289	ND	87.2	33.4-140			10/17/2023	
Benzo[b]fluoranthene	1930	230	ug/kg dry	2289	ND	84.5	22.2-153.3			10/17/2023	
Benzo[g,h,i]perylene	1860	230	ug/kg dry	2289	ND	81.5	11.3-135			10/17/2023	
Benzo[k]fluoranthene	1980	230	ug/kg dry	2289	ND	86.5	34.8-138.7			10/17/2023	
Chrysene	2090	110	ug/kg dry	2289	ND	91.3	34.2-135.8			10/17/2023	
Dibenz[a,h]anthracene	1710	230	ug/kg dry	2289	ND	74.7	15.1-151.4			10/17/2023	
Fluoranthene	1960	110	ug/kg dry	2289	ND	85.8	15.2-153			10/17/2023	
Fluorene	2160	110	ug/kg dry	2289	ND	94.5	40.2-118.3			10/17/2023	
Indeno(1,2,3-c,d)pyrene	1800	230	ug/kg dry	2289	ND	78.6	18.8-148.7			10/17/2023	
Naphthalene	2000	110	ug/kg dry	2289	ND	87.3	26.4-107.8			10/17/2023	
Phenanthrene	1970	110	ug/kg dry	2289	ND	85.9	23.1-144.2			10/17/2023	
Pyrene	2130	110	ug/kg dry	2289	ND	93.1	24.1-148.9			10/17/2023	
Surrogate: 2-Fluorobiphenyl	*2210*		ug/kg dry	*2289*		*96.7*	*36-133*			10/17/2023	
Surrogate: Nitrobenzene-d5	*1860*		ug/kg dry	*2289*		*81.3*	*26-123*			10/17/2023	
Surrogate: p-Terphenyl-d14	*2240*		ug/kg dry	*2289*		*97.8*	*36-142*			10/17/2023	
Matrix Spike Dup (B3J0516-MSD1)	**Source: 2309377-08**										
2-Methylnaphthalene	2040	290	ug/kg dry	2289	ND	89.2	31.4-113.4	5.73	35.6	10/17/2023	
Acenaphthene	1990	110	ug/kg dry	2289	ND	87.0	41.1-113.8	2.65	32.4	10/17/2023	
Acenaphthylene	2150	110	ug/kg dry	2289	ND	94.0	46.8-117.3	2.99	32.4	10/17/2023	
Anthracene	2090	110	ug/kg dry	2289	ND	91.1	33.6-131	2.42	49.4	10/17/2023	
Benz[a]anthracene	2140	110	ug/kg dry	2289	ND	93.7	32.3-137.5	0.343	47.3	10/17/2023	
Benzo[a]pyrene	2150	230	ug/kg dry	2289	ND	93.9	33.4-140	7.35	45	10/17/2023	
Benzo[b]fluoranthene	2130	230	ug/kg dry	2289	ND	92.9	22.2-153.3	9.53	45.7	10/17/2023	
Benzo[g,h,i]perylene	2050	230	ug/kg dry	2289	ND	89.6	11.3-135	9.47	45	10/17/2023	
Benzo[k]fluoranthene	2180	230	ug/kg dry	2289	ND	95.3	34.8-138.7	9.68	41	10/17/2023	
Chrysene	2120	110	ug/kg dry	2289	ND	92.8	34.2-135.8	1.66	45.5	10/17/2023	
Dibenz[a,h]anthracene	1830	230	ug/kg dry	2289	ND	80.2	15.1-151.4	7.04	64.9	10/17/2023	
Fluoranthene	2150	110	ug/kg dry	2289	ND	93.8	15.2-153	8.88	53.9	10/17/2023	
Fluorene	2170	110	ug/kg dry	2289	ND	95.0	40.2-118.3	0.526	36.8	10/17/2023	
Indeno(1,2,3-c,d)pyrene	1970	230	ug/kg dry	2289	ND	86.0	18.8-148.7	8.98	46.1	10/17/2023	
Naphthalene	1640	110	ug/kg dry	2289	ND	71.5	26.4-107.8	20.0	36.8	10/17/2023	
Phenanthrene	2030	110	ug/kg dry	2289	ND	88.7	23.1-144.2	3.20	52.6	10/17/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0516 - Method: 3545 Soil SVOC				**Prepared: 10/05/2023**							
Matrix Spike Dup (B3J0516-MSD1)	**Source: 2309377-08**										
Pyrene	2100	110	ug/kg dry	2289	ND	91.6	24.1-148.9	1.57	53.6	10/17/2023	
Surrogate: 2-Fluorobiphenyl	*2170*		ug/kg dry	*2289*		*94.7*	*36-133*			10/17/2023	
Surrogate: Nitrobenzene-d5	*1490*		ug/kg dry	*2289*		*65.0*	*26-123*			10/17/2023	
Surrogate: p-Terphenyl-d14	*2210*		ug/kg dry	*2289*		*96.4*	*36-142*			10/17/2023	

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Inorganics-General Chemistry - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0921 - Method: Solids				**Prepared: 10/09/2023**							
Duplicate (B3J0921-DUP1)	**Source: 2309377-01**										
% Total Solids	84.6	0.1	%		85.7			1.33	20	10/09/2023	
Duplicate (B3J0921-DUP2)	**Source: 2310002-01**										
% Total Solids	85.0	0.1	%		88.4			3.97	20	10/09/2023	

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Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0439 - Method: 3050				**Prepared: 10/04/2023**							
Blank (B3J0439-BLK1)											
Arsenic	ND	0.5	mg/kg dry							10/16/2023	
Barium	ND	1.0	mg/kg dry							10/16/2023	
Cadmium	ND	0.2	mg/kg dry							10/16/2023	
Chromium	ND	2.0	mg/kg dry							10/16/2023	
Copper	ND	1.0	mg/kg dry							10/16/2023	
Lead	ND	1.0	mg/kg dry							10/16/2023	
Selenium	ND	0.2	mg/kg dry							10/16/2023	
Silver	ND	0.1	mg/kg dry							10/16/2023	
Zinc	ND	1.0	mg/kg dry							10/16/2023	
LCS (B3J0439-BS1)											
Arsenic	93.4	5.0	mg/kg dry	100.0		93.4	85-115			10/16/2023	
Barium	94.9	10	mg/kg dry	100.0		94.9	85-115			10/16/2023	
Cadmium	9.8	2.0	mg/kg dry	10.00		97.9	85-115			10/16/2023	
Chromium	98.5	20	mg/kg dry	100.0		98.5	85-115			10/16/2023	
Copper	98.5	10	mg/kg dry	100.0		98.5	85-115			10/16/2023	
Lead	99.0	10	mg/kg dry	100.0		99.0	85-115			10/16/2023	
Selenium	99.7	2.0	mg/kg dry	100.0		99.7	85-115			10/16/2023	
Silver	9.5	1.0	mg/kg dry	10.00		95.2	85-115			10/16/2023	
Zinc	102	10	mg/kg dry	100.0		102	85-115			10/16/2023	
Matrix Spike (B3J0439-MS1)	**Source: 2309377-08**										
Arsenic	84.5	5.0	mg/kg dry	100.0	4.5	80.0	70-130			10/16/2023	
Barium	91.6	10	mg/kg dry	100.0	9.6	82.0	70-130			10/16/2023	
Cadmium	8.4	2.0	mg/kg dry	10.00	ND	84.4	70-130			10/16/2023	
Chromium	86.2	20	mg/kg dry	100.0	4.9	81.3	70-130			10/16/2023	
Copper	84.6	10	mg/kg dry	100.0	4.1	80.4	70-130			10/16/2023	
Lead	92.8	10	mg/kg dry	100.0	3.5	89.4	70-130			10/16/2023	
Selenium	88.3	2.0	mg/kg dry	100.0	ND	88.3	70-130			10/16/2023	
Silver	8.5	1.0	mg/kg dry	10.00	ND	84.9	70-130			10/16/2023	
Zinc	106	10	mg/kg dry	100.0	22.7	83.3	70-130			10/16/2023	
Matrix Spike Dup (B3J0439-MSD1)	**Source: 2309377-08**										
Arsenic	89.0	5.0	mg/kg dry	100.0	4.5	84.4	70-130	5.13	20	10/16/2023	
Barium	94.8	10	mg/kg dry	100.0	9.6	85.3	70-130	3.48	20	10/16/2023	
Cadmium	9.6	2.0	mg/kg dry	10.00	ND	95.6	70-130	12.5	20	10/16/2023	
Chromium	90.5	20	mg/kg dry	100.0	4.9	85.6	70-130	4.89	20	10/16/2023	
Copper	89.2	10	mg/kg dry	100.0	4.1	85.1	70-130	5.37	20	10/16/2023	
Lead	96.1	10	mg/kg dry	100.0	3.5	92.6	70-130	3.44	20	10/16/2023	
Selenium	90.4	2.0	mg/kg dry	100.0	ND	90.4	70-130	2.39	20	10/16/2023	
Silver	9.3	1.0	mg/kg dry	10.00	ND	93.4	70-130	9.54	20	10/16/2023	
Zinc	122	10	mg/kg dry	100.0	22.7	99.4	70-130	14.1	20	10/16/2023	
Batch B3J0925 - Method: 245.5				**Prepared: 10/09/2023**							
Blank (B3J0925-BLK1)											
Mercury	ND	0.05	mg/kg wet							10/11/2023	
Blank (B3J0925-BLK2)											
Mercury	ND	0.05	mg/kg wet							10/11/2023	
LCS (B3J0925-BS1)											
Mercury	0.4	0.05	mg/kg wet	0.4000		98.5	85-115			10/11/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0925 - Method: 245.5				**Prepared: 10/09/2023**							
LCS (B3J0925-BS2)											
Mercury	0.4	0.05	mg/kg wet	0.4000		101	85-115			10/11/2023	
Matrix Spike (B3J0925-MS1)	**Source: 2309321-02**										
Mercury	0.4	0.05	mg/kg dry	0.4115	0.002	99.9	70-130			10/11/2023	
Matrix Spike (B3J0925-MS2)	**Source: 2309323-06**										
Mercury	0.4	0.05	mg/kg dry	0.4351	0.006	100	70-130			10/11/2023	
Matrix Spike (B3J0925-MS3)	**Source: 2309377-08**										
Mercury	0.5	0.06	mg/kg dry	0.4578	0.004	101	70-130			10/11/2023	
Matrix Spike (B3J0925-MS4)	**Source: 2309323-03**										
Mercury	0.5	0.06	mg/kg dry	0.4487	0.02	100	70-130			10/11/2023	
Matrix Spike Dup (B3J0925-MSD1)	**Source: 2309321-02**										
Mercury	0.4	0.05	mg/kg dry	0.4115	0.002	101	70-130	0.927	20	10/11/2023	
Matrix Spike Dup (B3J0925-MSD2)	**Source: 2309323-06**										
Mercury	0.4	0.05	mg/kg dry	0.4351	0.006	101	70-130	0.804	20	10/11/2023	
Matrix Spike Dup (B3J0925-MSD3)	**Source: 2309377-08**										
Mercury	0.5	0.06	mg/kg dry	0.4578	0.004	102	70-130	1.29	20	10/11/2023	
Reference (B3J0925-SRM1)											
Mercury	0.4	0.05	mg/kg wet	0.4000		94.9	0-200			10/11/2023	
Batch B3J1224 - Method: 3050				**Prepared: 10/12/2023**							
Blank (B3J1224-BLK1)											
Arsenic	ND	0.5	mg/kg dry							10/16/2023	
Barium	ND	1.0	mg/kg dry							10/16/2023	
Cadmium	ND	0.2	mg/kg dry							10/16/2023	
Chromium	ND	2.0	mg/kg dry							10/16/2023	
Copper	ND	1.0	mg/kg dry							10/16/2023	
Lead	ND	1.0	mg/kg dry							10/17/2023	
Selenium	ND	0.2	mg/kg dry							10/17/2023	
Silver	ND	0.1	mg/kg dry							10/16/2023	
Zinc	ND	1.0	mg/kg dry							10/16/2023	
LCS (B3J1224-BS1)											
Arsenic	93.0	5.0	mg/kg dry	100.0		93.0	85-115			10/16/2023	
Barium	95.5	10	mg/kg dry	100.0		95.5	85-115			10/16/2023	
Cadmium	9.4	2.0	mg/kg dry	10.00		94.0	85-115			10/16/2023	
Chromium	96.2	20	mg/kg dry	100.0		96.2	85-115			10/16/2023	
Copper	97.8	10	mg/kg dry	100.0		97.8	85-115			10/16/2023	
Lead	99.3	10	mg/kg dry	100.0		99.3	85-115			10/17/2023	
Selenium	94.7	2.0	mg/kg dry	100.0		94.7	85-115			10/17/2023	
Silver	9.1	1.0	mg/kg dry	10.00		90.9	85-115			10/16/2023	
Zinc	98.3	10	mg/kg dry	100.0		98.3	85-115			10/16/2023	
Matrix Spike (B3J1224-MS1)	**Source: 2310057-01**										
Arsenic	90.2	5.0	mg/kg dry	100.0	1.2	89.0	70-130			10/16/2023	
Barium	113	10	mg/kg dry	100.0	36.4	77.0	70-130			10/16/2023	
Cadmium	41.5	2.0	mg/kg dry	10.00	41.2	2.32	70-130			10/16/2023	X3
Chromium	113	20	mg/kg dry	100.0	24.1	89.4	70-130			10/16/2023	

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Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1224 - Method: 3050				**Prepared: 10/12/2023**							
Matrix Spike (B3J1224-MS1)	**Source: 2310057-01**										
Copper	99.2	10	mg/kg dry	100.0	11.6	87.6	70-130			10/16/2023	
Lead	143	10	mg/kg dry	100.0	144	-0.181	70-130			10/17/2023	A03
Selenium	94.3	2.0	mg/kg dry	100.0	ND	94.3	70-130			10/17/2023	
Silver	9.3	1.0	mg/kg dry	10.00	ND	93.4	70-130			10/16/2023	
Zinc	213	10	mg/kg dry	100.0	128	85.7	70-130			10/16/2023	
Matrix Spike Dup (B3J1224-MSD1)	**Source: 2310057-01**										
Arsenic	86.6	5.0	mg/kg dry	100.0	1.2	85.4	70-130	4.11	20	10/16/2023	
Barium	115	10	mg/kg dry	100.0	36.4	78.2	70-130	1.05	20	10/16/2023	
Cadmium	44.0	2.0	mg/kg dry	10.00	41.2	27.6	70-130	5.91	20	10/16/2023	
Chromium	112	20	mg/kg dry	100.0	24.1	87.9	70-130	1.32	20	10/16/2023	
Copper	98.0	10	mg/kg dry	100.0	11.6	86.4	70-130	1.24	20	10/16/2023	
Lead	140	10	mg/kg dry	100.0	144	-3.35	70-130	2.23	20	10/17/2023	
Selenium	89.3	2.0	mg/kg dry	100.0	ND	89.3	70-130	5.40	20	10/17/2023	
Silver	9.4	1.0	mg/kg dry	10.00	ND	93.6	70-130	0.186	20	10/16/2023	
Zinc	208	10	mg/kg dry	100.0	128	80.3	70-130	2.56	20	10/16/2023	

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Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
2309377	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	SOIL/SEDIMENT

Location ID: LB04.2449	Program: 201	CC Email 1: carrj@aktpeerless.com	Project TAT Days:	Sample Collector: Kammie Niswander	
Dept-Division-District: RRD - Lansing Central	Activity:	CC Email 2: niswanderk@aktpeerless.com	Project Due Date:	Sample Collector Phone: 989-844-6442	
State Project Manager: Janet Michaluk	Funding Source:	CC Email 3:	R0140 Accept Analysis hold time codes	Contract Firm: AKT Peerless	
State Project Manager Email: MichalukJ@michigan.gov	Location Code: C033	Overflow Lab Choice 1:		Contract Firm Primary Contact: Jeff Carr	
State Project Manager Phone: 517-643-0314	SUD Location Code:	Overflow Lab Choice 2:		Primary Contact Phone: 989-754-9896	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1		AKT-1	9/26/2023	1:35pm	2	PID:0
2		AKT-2	9/25/2023	9:20am	2	PID:1
3		AKT-3	9/25/2023	9:50am	2	PID:0
4		AKT-4	9/25/2023	10:36am	2	PID:0
5		AKT-5	9/25/2023	11:35am	2	PID:0
6		AKT-6	9/26/2023	12:45pm	2	PID: 0
7		AKT-7s	9/25/2023	2:15pm	2	PID:0
8		AKT-7d	9/25/2023	2:20pm	2	PID:0
9		AKT-8s	9/25/2023	1:05pm	2	PID:0
10		AKT-8d	9/25/2023	1:10pm	2	PID:0

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

OS - Pesticides, PCBs
- 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

BNA - Base Neutral Acids
- BNAs: 1 2 3 4 5 6 7 8 9 10
- PNAs only: 2 3 4 5 6 7 8 9 10
- BNs only: 1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests
- 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

METALS CHEMISTRY PACKAGES

- OpMemo2 - Total: 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,V,Zn)
- Michigan10 - Total: 2 3 4 5 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
Barium - Ba	1 2 3 4 5 6 7 8 9 10
Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Copper - Cu	1 2 3 4 5 6 7 8 9 10
Iron - Fe	1 2 3 4 5 6 7 8 9 10
Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Lithium - Li	1 2 3 4 5 6 7 8 9 10
Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Lead - Pb	1 2 3 4 5 6 7 8 9 10
Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Selenium - Se	1 2 3 4 5 6 7 8 9 10
Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Uranium - U	1 2 3 4 5 6 7 8 9 10
Vanadium - V	1 2 3 4 5 6 7 8 9 10
Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Potassium - K	1 2 3 4 5 6 7 8 9 10
Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Sodium - Na	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GS - General Chemistry
- 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

Chain of Custody

	Relinquished by	Received By	Date / Time
1	Print Name & Org.: Kammie Niswander AKT Signature: Kammie Niswander	AKT Storage Kammie Niswander	9/25/23 5:00pm 9/26/23 4:00pm
2	Print Name & Org.: AKT Storage Signature: Kammie Niswander	Ashley Bergmooser AKT Peerless Ashley Bergmooser	9/29/23
3	Print Name & Org.: Ashley Bergmooser AKT Peerless Signature: Ashley Bergmooser	Melissa Smith Melissa Smith	9/29/23 1115

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
2309377	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	SOIL/SEDIMENT

Location ID	Program: 201	CC Email 1: carrj@aktpeerless.com	Project TAT Days	Sample Collector: Kammie Niswander
Dept-Division-District: RRD - Lansing Central	Activity	CC Email 2: niswanderk@aktpeerless.com	Project Due Date	Sample Collector Phone: 989-844-6442
State Project Manager: Janet Michaluk	Funding Source	CC Email 3		Contract Firm: AKT Peerless
State Project Manager Email: MichalukJ@michigan.gov	Location Code: C033	Overflow Lab Choice 1	Accept Analysis hold time codes	Contract Firm Primary Contact: Jeff Carr
State Project Manager Phone: 517-643-0314	SUD Location Code	Overflow Lab Choice 2		Primary Contact Phone: 989-754-9896

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1		AKT-9	9/25/2023	3:05pm	2	PID:0
2		AKT-Dup Soil	9/25/2023		2	
3		MS (AKT-7d)	9/25/2023	2:20pm	2	
4		MSD (AKT-7d)	9/25/2023	2:20pm	2	
5		Methanol Trip Blank	9/25/2023		1	
6						
7						
8						
9						
10						

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

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

BNA - Base Neutral Acids

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

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

M5 - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
Barium - Ba	1 2 3 4 5 6 7 8 9 10
Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Copper - Cu	1 2 3 4 5 6 7 8 9 10
Iron - Fe	1 2 3 4 5 6 7 8 9 10
Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Lithium - Li	1 2 3 4 5 6 7 8 9 10
Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Lead - Pb	1 2 3 4 5 6 7 8 9 10
Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Selenium - Se	1 2 3 4 5 6 7 8 9 10
Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Uranium - U	1 2 3 4 5 6 7 8 9 10
Vanadium - V	1 2 3 4 5 6 7 8 9 10
Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Potassium - K	1 2 3 4 5 6 7 8 9 10
Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Sodium - Na	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GS - General Chemistry

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

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Kammie Niswander AKT	AKT Storage	9/25/23 5:00pm
Signature:			9/26/23 4:00pm
Print Name & Org.	AKT Storage	Ashley Bergmooser AKT Peerless	9/29/2023
Signature:			
Print Name & Org.	Ashley Bergmooser AKT Peerless	Melissa Smith	9/29/23 1115
Signature:			

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

01 November 2023

Work Order: 2309378

Price: $3,064.00

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909

RE: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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

Project: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY
Site Code: LB042449
Project Manager: Janet Michaluk

Reported:
11/01/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
AKT-1/TMW	2309378-01	Water	09/26/2023	09/29/2023	
AKT-4/TMW	2309378-02	Water	09/25/2023	09/29/2023	
AKT-5/TMW	2309378-03	Water	09/25/2023	09/29/2023	
AKT-6/TMW	2309378-04	Water	09/25/2023	09/29/2023	
AKT-7/TMW	2309378-05	Water	09/25/2023	09/29/2023	
AKT-8/TMW	2309378-06	Water	09/25/2023	09/29/2023	
AKT-DUP W	2309378-07	Water	09/25/2023	09/29/2023	
MS AKT-5/TMW	2309378-08	Water	09/25/2023	09/29/2023	
MSD AKT-5/TMW	2309378-09	Water	09/25/2023	09/29/2023	
EQ BLANK	2309378-10	Water	09/25/2023	09/29/2023	
TRIP BLANK	2309378-11	Water	09/25/2023	09/29/2023	

Notes and Definitions

I	Dilution required due to matrix interference; reporting limit (RL) raised.
A09	Result is estimated due to high recovery of batch QC.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result(s) and reporting limit(s) are estimated due to low 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 the analyte was not detected at or above the method reporting limit (RL)
RL	Reporting Limit
NA	Not Applicable

Case Narrative

Samples were received **9/29/2023 11:20:00AM** for client **EGLE-RRD-LANSING** as a part of project **IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY**.

Samples were logged and designated as Work Order # **2309378** on **9/29/2023 3:40:00PM**.

This Report was created **11/1/2023 11:18:07AM**.

Additional Notes/Narrative (if applicable):

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

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

Client ID: AKT-1/TMW

Lab ID: 2309378-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	A05
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/05/23	B3J0503	8260	JT	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-43-2	Benzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	

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

Client ID: AKT-1/TMW

Lab ID: 2309378-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-54-3	Hexane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-42-5	Styrene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/05/23	B3J0503	8260	JT	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-88-3	Toluene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Toluene-d8			*98.2 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	

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FAX: (517) 335-9600

Client ID: AKT-1/TMW

Lab ID: 2309378-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*62.7 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*63.3 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*106 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	Arsenic	ND	2.0	ug/L	2	10/25/23	B3J0419	200.8	ARH	I
7440-39-3	**Barium**	**270**	20	ug/L	4	10/25/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.4	ug/L	2	10/25/23	B3J0419	200.8	ARH	I
7440-47-3	Chromium	ND	2.0	ug/L	2	10/20/23	B3J0419	200.8	ARH	I
7440-50-8	**Copper**	**2.3**	2.0	ug/L	2	10/30/23	B3J0419	200.8	ARH	
7439-92-1	Lead	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	Selenium	ND	4.0	ug/L	4	10/30/23	B3J0419	200.8	ARH	I
7440-22-4	Silver	ND	0.4	ug/L	2	10/25/23	B3J0419	200.8	ARH	I
7440-66-6	Zinc	ND	10	ug/L	2	10/25/23	B3J0419	200.8	ARH	I

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: AKT-4/TMW

Lab ID: 2309378-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*109 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*96.0 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: AKT-4/TMW

Lab ID: 2309378-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*72.9 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*75.1 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*115 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	**Arsenic**	**3.4**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**35**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	**Chromium**	**5.9**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	**Copper**	**4.0**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	**Lead**	**2.4**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**3.8**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	**Zinc**	**16**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Client ID: AKT-5/TMW

Lab ID: 2309378-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	A05
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/05/23	B3J0503	8260	JT	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-43-2	Benzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	

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TEL: (517) 335-9800
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Client ID: AKT-5/TMW

Lab ID: 2309378-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-54-3	Hexane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-42-5	Styrene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/05/23	B3J0503	8260	JT	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-88-3	Toluene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
Surrogate: Bromofluorobenzene			*98.0 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Dibromofluoromethane			*104 %*	*82.7-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Toluene-d8			*97.4 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Client ID: AKT-5/TMW

Lab ID: 2309378-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*69.9 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*71.9 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*110 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	Arsenic	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**87**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	Chromium	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	Copper	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	Lead	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**4.2**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	Zinc	ND	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Client ID: AKT-6/TMW

Lab ID: 2309378-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

Client ID: AKT-6/TMW

Lab ID: 2309378-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*108 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*95.8 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

Client ID: AKT-6/TMW

Lab ID: 2309378-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*66.3 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*68.7 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*106 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	

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

Client ID: AKT-7/TMW

Lab ID: 2309378-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

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Client ID: AKT-7/TMW

Lab ID: 2309378-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*107 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*99.9 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

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FAX: (517) 335-9600

Client ID: AKT-7/TMW

Lab ID: 2309378-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*75.0 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*75.2 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*105 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	Arsenic	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**39**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	Chromium	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	Copper	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	Lead	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**2.7**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	Zinc	ND	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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Client ID: AKT-8/TMW

Lab ID: 2309378-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

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TEL: (517) 335-9800
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Client ID: AKT-8/TMW

Lab ID: 2309378-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*108 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*97.2 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Client ID: AKT-8/TMW

Lab ID: 2309378-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*74.9 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*76.2 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*108 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	**Arsenic**	**13**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**160**	5.0	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-43-9	**Cadmium**	**0.6**	0.2	ug/L	1	10/31/23	B3J0419	200.8	ARH	
7440-47-3	**Chromium**	**16**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	**Copper**	**15**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	**Lead**	**15**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**4.2**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	**Zinc**	**68**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Client ID: AKT-DUP W

Lab ID: 2309378-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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

Client ID: AKT-DUP W

Lab ID: 2309378-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*108 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*100 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

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Client ID: AKT-DUP W

Lab ID: 2309378-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/04/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/04/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*69.6 %*	*20-101*		*10/04/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*70.9 %*	*13-100*		*10/04/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*102 %*	*18-150*		*10/04/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	**Arsenic**	**1.6**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**46**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	**Chromium**	**2.3**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	**Copper**	**1.8**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	**Lead**	**1.3**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**2.9**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	**Zinc**	**8.8**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

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FAX: (517) 335-9600

Client ID: MS AKT-5/TMW

Lab ID: 2309378-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	**1,1,1,2-Tetrachloroethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-55-6	**1,1,1-Trichloroethane**	**56**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-34-5	**1,1,2,2-Tetrachloroethane**	**49**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-00-5	**1,1,2-Trichloroethane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
76-13-1	**1,1,2-Trichlorotrifluoroethane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-34-3	**1,1-Dichloroethane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-35-4	**1,1-Dichloroethylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
87-61-6	**1,2,3-Trichlorobenzene**	**51**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-18-4	**1,2,3-Trichloropropane**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
526-73-8	**1,2,3-Trimethylbenzene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
120-82-1	**1,2,4-Trichlorobenzene**	**51**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-63-6	**1,2,4-Trimethylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-12-8	**1,2-Dibromo-3-chloropropane**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-93-4	**1,2-Dibromoethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-50-1	**1,2-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-06-2	**1,2-Dichloroethane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-87-5	**1,2-Dichloropropane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-67-8	**1,3,5-Trimethylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
541-73-1	**1,3-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-46-7	**1,4-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
540-84-1	**2,2,4-Trimethylpentane**	**52**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-93-3	**2-Butanone (MEK)**	**45**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-57-6	**2-Methylnaphthalene**	**40**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	A05
67-64-1	**2-Propanone (acetone)**	**50**	20	ug/L	1	10/05/23	B3J0503	8260	JT	
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-13-1	**Acrylonitrile**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-43-2	**Benzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-97-5	**Bromochloromethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-27-4	**Bromodichloromethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-25-2	**Bromoform**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-83-9	**Bromomethane**	**52**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-15-0	**Carbon disulfide**	**48**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
56-23-5	**Carbon tetrachloride**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-90-7	**Chlorobenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-00-3	**Chloroethane**	**51**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-66-3	**Chloroform**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-87-3	**Chloromethane**	**55**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-59-2	**cis-1,2-Dichloroethylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-01-5	**cis-1,3-Dichloropropylene**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-82-7	**Cyclohexane**	**51**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
124-48-1	**Dibromochloromethane**	**49**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	

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Lab ID: 2309378-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
74-95-3	**Dibromomethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-71-8	**Dichlorodifluoromethane**	**61**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
60-29-7	**Diethyl ether**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-20-3	**Diisopropyl Ether**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-41-4	**Ethylbenzene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
637-92-3	**Ethyltertiarybutylether**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-72-1	**Hexachloroethane**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-54-3	**Hexane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-82-8	**Isopropylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1330-20-7	**m & p - Xylene**	**110**	2.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-37-7	**Methylcyclopentane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-09-2	**Methylene chloride**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1634-04-4	**Methyltertiarybutylether**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-20-3	**Naphthalene**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
104-51-8	**n-Butylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
142-82-5	**n-Heptane**	**57**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
103-65-1	**n-Propylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-47-6	**o-Xylene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
135-98-8	**sec-Butylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-42-5	**Styrene**	**54**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-06-6	**tert-Butylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-65-0	**tertiary Butyl Alcohol**	**230**	50	ug/L	1	10/05/23	B3J0503	8260	JT	
994-05-8	**tertiaryAmylmethylether**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
127-18-4	**Tetrachloroethylene**	**54**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
109-99-9	**Tetrahydrofuran**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-88-3	**Toluene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-60-5	**trans-1,2-Dichloroethylene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-02-6	**trans-1,3-Dichloropropylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-01-6	**Trichloroethylene**	**55**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-69-4	**Trichlorofluoromethane**	**56**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-01-4	**Vinyl chloride**	**55**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
Surrogate: Bromofluorobenzene			*99.1 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Dibromofluoromethane			*103 %*	*82.7-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	

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Client ID: MS AKT-5/TMW

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	**2-Methylnaphthalene**	**34**	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	**Acenaphthene**	**35**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	**Acenaphthylene**	**39**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	**Anthracene**	**40**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	**Benz[a]anthracene**	**48**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	**Benzo[a]pyrene**	**44**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**45**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	**Benzo[g,h,i]perylene**	**46**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	**Benzo[k]fluoranthene**	**43**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	**Chrysene**	**46**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	**Dibenz[a,h]anthracene**	**41**	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	**Fluoranthene**	**45**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	**Fluorene**	**39**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**44**	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	**Naphthalene**	**32**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	**Phenanthrene**	**40**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	**Pyrene**	**45**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*79.7 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*79.6 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*113 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	**Arsenic**	**52**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**150**	5.0	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-43-9	**Cadmium**	**46**	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	**Chromium**	**52**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	**Copper**	**41**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	**Lead**	**43**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	**Mercury**	**4.0**	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**49**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	**Silver**	**43**	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	**Zinc**	**40**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

Client ID: MSD AKT-5/TMW

Lab ID: 2309378-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	**1,1,1,2-Tetrachloroethane**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-55-6	**1,1,1-Trichloroethane**	**55**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-34-5	**1,1,2,2-Tetrachloroethane**	**49**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-00-5	**1,1,2-Trichloroethane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
76-13-1	**1,1,2-Trichlorotrifluoroethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-34-3	**1,1-Dichloroethane**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-35-4	**1,1-Dichloroethylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
87-61-6	**1,2,3-Trichlorobenzene**	**52**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-18-4	**1,2,3-Trichloropropane**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
526-73-8	**1,2,3-Trimethylbenzene**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
120-82-1	**1,2,4-Trichlorobenzene**	**52**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-63-6	**1,2,4-Trimethylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-12-8	**1,2-Dibromo-3-chloropropane**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-93-4	**1,2-Dibromoethane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-50-1	**1,2-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-06-2	**1,2-Dichloroethane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-87-5	**1,2-Dichloropropane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-67-8	**1,3,5-Trimethylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
541-73-1	**1,3-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
106-46-7	**1,4-Dichlorobenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
540-84-1	**2,2,4-Trimethylpentane**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
78-93-3	**2-Butanone (MEK)**	**46**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-57-6	**2-Methylnaphthalene**	**42**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	A05
67-64-1	**2-Propanone (acetone)**	**50**	20	ug/L	1	10/05/23	B3J0503	8260	JT	
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
107-13-1	**Acrylonitrile**	**48**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
71-43-2	**Benzene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-97-5	**Bromochloromethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-27-4	**Bromodichloromethane**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-25-2	**Bromoform**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-83-9	**Bromomethane**	**54**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-15-0	**Carbon disulfide**	**49**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
56-23-5	**Carbon tetrachloride**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-90-7	**Chlorobenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-00-3	**Chloroethane**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-66-3	**Chloroform**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
74-87-3	**Chloromethane**	**55**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-59-2	**cis-1,2-Dichloroethylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-01-5	**cis-1,3-Dichloropropylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-82-7	**Cyclohexane**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
124-48-1	**Dibromochloromethane**	**50**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	

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Client ID: MSD AKT-5/TMW

Lab ID: 2309378-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
74-95-3	**Dibromomethane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-71-8	**Dichlorodifluoromethane**	**59**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
60-29-7	**Diethyl ether**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-20-3	**Diisopropyl Ether**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-41-4	**Ethylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
637-92-3	**Ethyltertiarybutylether**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
67-72-1	**Hexachloroethane**	**52**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
110-54-3	**Hexane**	**48**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-82-8	**Isopropylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1330-20-7	**m & p - Xylene**	**110**	2.0	ug/L	1	10/05/23	B3J0503	8260	JT	
96-37-7	**Methylcyclopentane**	**54**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-09-2	**Methylene chloride**	**50**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
1634-04-4	**Methyltertiarybutylether**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
91-20-3	**Naphthalene**	**51**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
104-51-8	**n-Butylbenzene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
142-82-5	**n-Heptane**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
103-65-1	**n-Propylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
95-47-6	**o-Xylene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
135-98-8	**sec-Butylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
100-42-5	**Styrene**	**54**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
98-06-6	**tert-Butylbenzene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-65-0	**tertiary Butyl Alcohol**	**240**	50	ug/L	1	10/05/23	B3J0503	8260	JT	
994-05-8	**tertiaryAmylmethylether**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
127-18-4	**Tetrachloroethylene**	**54**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
109-99-9	**Tetrahydrofuran**	**49**	5.0	ug/L	1	10/05/23	B3J0503	8260	JT	
108-88-3	**Toluene**	**52**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
156-60-5	**trans-1,2-Dichloroethylene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
10061-02-6	**trans-1,3-Dichloropropylene**	**51**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
79-01-6	**Trichloroethylene**	**53**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-69-4	**Trichlorofluoromethane**	**56**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
75-01-4	**Vinyl chloride**	**56**	1.0	ug/L	1	10/05/23	B3J0503	8260	JT	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*10/05/23*	B3J0503	*8260*	*JT*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*10/05/23*	B3J0503	*8260*	*JT*	

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Client ID: MSD AKT-5/TMW

Lab ID: 2309378-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	**2-Methylnaphthalene**	**32**	5.0	ug/L	1	10/03/23	B3J0220	8270	MF	
83-32-9	**Acenaphthene**	**34**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
208-96-8	**Acenaphthylene**	**38**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
120-12-7	**Anthracene**	**40**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
56-55-3	**Benz[a]anthracene**	**48**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
50-32-8	**Benzo[a]pyrene**	**44**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
205-99-2	**Benzo[b]fluoranthene**	**46**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
191-24-2	**Benzo[g,h,i]perylene**	**46**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
207-08-9	**Benzo[k]fluoranthene**	**44**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
218-01-9	**Chrysene**	**45**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
53-70-3	**Dibenz[a,h]anthracene**	**41**	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
206-44-0	**Fluoranthene**	**44**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
86-73-7	**Fluorene**	**38**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**44**	2.0	ug/L	1	10/03/23	B3J0220	8270	MF	
91-20-3	**Naphthalene**	**30**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
85-01-8	**Phenanthrene**	**39**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
129-00-0	**Pyrene**	**44**	1.0	ug/L	1	10/03/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*77.1 %*	*20-101*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*76.2 %*	*13-100*		*10/03/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*112 %*	*18-150*		*10/03/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	**Arsenic**	**52**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	**Barium**	**150**	5.0	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-43-9	**Cadmium**	**47**	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	**Chromium**	**50**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	**Copper**	**41**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	**Lead**	**42**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	**Mercury**	**3.9**	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	**Selenium**	**50**	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	**Silver**	**43**	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	**Zinc**	**41**	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

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

Client ID: EQ BLANK

Lab ID: 2309378-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

Client ID: EQ BLANK

Lab ID: 2309378-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*110 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*99.2 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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TEL: (517) 335-9800
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Client ID: EQ BLANK

Lab ID: 2309378-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/04/23	B3J0220	8270	MF	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/04/23	B3J0220	8270	MF	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/04/23	B3J0220	8270	MF	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/04/23	B3J0220	8270	MF	
Surrogate: 2-Fluorobiphenyl			*71.4 %*	*20-101*		*10/04/23*	B3J0220	*8270*	*MF*	
Surrogate: Nitrobenzene-d5			*73.3 %*	*13-100*		*10/04/23*	B3J0220	*8270*	*MF*	
Surrogate: p-Terphenyl-d14			*117 %*	*18-150*		*10/04/23*	B3J0220	*8270*	*MF*	
Inorganics-Metals										
7440-38-2	Arsenic	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-39-3	Barium	ND	5.0	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-47-3	Chromium	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-50-8	Copper	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-92-1	Lead	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/17/23	B3J1732	245.1	JP1	
7782-49-2	Selenium	ND	1.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	
7440-22-4	Silver	ND	0.2	ug/L	1	10/19/23	B3J0419	200.8	ARH	
7440-66-6	Zinc	ND	5.0	ug/L	1	10/18/23	B3J0419	200.8	ARH	

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FAX: (517) 335-9600

Client ID: TRIP BLANK

Lab ID: 2309378-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/04/23	B3J0420	8260	KB	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
71-43-2	Benzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Client ID: TRIP BLANK

Lab ID: 2309378-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
110-54-3	Hexane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/04/23	B3J0420	8260	KB	
96-37-7	Methylcyclopentane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
142-82-5	n-Heptane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
100-42-5	Styrene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/04/23	B3J0420	8260	KB	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/04/23	B3J0420	8260	KB	
108-88-3	Toluene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/04/23	B3J0420	8260	KB	
Surrogate: Bromofluorobenzene			*109 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*10/04/23*	B3J0420	*8260*	*KB*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*10/04/23*	B3J0420	*8260*	*KB*	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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
Batch B3J0420 - Method: 5030				**Prepared: 10/04/2023**							
Blank (B3J0420-BLK1)											
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							10/04/2023	
1,1,1-Trichloroethane	ND	1.0	ug/L							10/04/2023	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							10/04/2023	
1,1,2-Trichloroethane	ND	1.0	ug/L							10/04/2023	
1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L							10/04/2023	
1,1-Dichloroethane	ND	1.0	ug/L							10/04/2023	
1,1-Dichloroethylene	ND	1.0	ug/L							10/04/2023	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							10/04/2023	
1,2,3-Trichloropropane	ND	1.0	ug/L							10/04/2023	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							10/04/2023	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							10/04/2023	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							10/04/2023	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L							10/04/2023	
1,2-Dibromoethane	ND	1.0	ug/L							10/04/2023	
1,2-Dichlorobenzene	ND	1.0	ug/L							10/04/2023	
1,2-Dichloroethane	ND	1.0	ug/L							10/04/2023	
1,2-Dichloropropane	ND	1.0	ug/L							10/04/2023	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							10/04/2023	
1,3-Dichlorobenzene	ND	1.0	ug/L							10/04/2023	
1,4-Dichlorobenzene	ND	1.0	ug/L							10/04/2023	
2,2,4-Trimethylpentane	ND	5.0	ug/L							10/04/2023	
2-Butanone (MEK)	ND	5.0	ug/L							10/04/2023	
2-Methylnaphthalene	ND	5.0	ug/L							10/04/2023	
2-Propanone (acetone)	ND	20	ug/L							10/04/2023	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							10/04/2023	
Acrylonitrile	ND	5.0	ug/L							10/04/2023	
Benzene	ND	1.0	ug/L							10/04/2023	
Bromochloromethane	ND	1.0	ug/L							10/04/2023	
Bromodichloromethane	ND	1.0	ug/L							10/04/2023	
Bromoform	ND	1.0	ug/L							10/04/2023	
Bromomethane	ND	5.0	ug/L							10/04/2023	
Carbon disulfide	ND	1.0	ug/L							10/04/2023	
Carbon tetrachloride	ND	1.0	ug/L							10/04/2023	
Chlorobenzene	ND	1.0	ug/L							10/04/2023	
Chloroethane	ND	5.0	ug/L							10/04/2023	
Chloroform	ND	1.0	ug/L							10/04/2023	
Chloromethane	ND	5.0	ug/L							10/04/2023	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							10/04/2023	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							10/04/2023	
Cyclohexane	ND	5.0	ug/L							10/04/2023	
Dibromochloromethane	ND	1.0	ug/L							10/04/2023	
Dibromomethane	ND	1.0	ug/L							10/04/2023	
Dichlorodifluoromethane	ND	5.0	ug/L							10/04/2023	
Diethyl ether	ND	5.0	ug/L							10/04/2023	
Diisopropyl Ether	ND	5.0	ug/L							10/04/2023	
Ethylbenzene	ND	1.0	ug/L							10/04/2023	
Ethyltertiarybutylether	ND	5.0	ug/L							10/04/2023	
Hexachloroethane	ND	5.0	ug/L							10/04/2023	
Hexane	ND	1.0	ug/L							10/04/2023	
Isopropylbenzene	ND	1.0	ug/L							10/04/2023	
m & p - Xylene	ND	2.0	ug/L							10/04/2023	
Methylcyclopentane	ND	1.0	ug/L							10/04/2023	

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Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0420 - Method: 5030				**Prepared: 10/04/2023**							
Blank (B3J0420-BLK1)											
Methylene chloride	ND	5.0	ug/L							10/04/2023	
Methyltertiarybutylether	ND	1.0	ug/L							10/04/2023	
Naphthalene	ND	5.0	ug/L							10/04/2023	
n-Butylbenzene	ND	1.0	ug/L							10/04/2023	
n-Heptane	ND	1.0	ug/L							10/04/2023	
n-Propylbenzene	ND	1.0	ug/L							10/04/2023	
o-Xylene	ND	1.0	ug/L							10/04/2023	
sec-Butylbenzene	ND	1.0	ug/L							10/04/2023	
Styrene	ND	1.0	ug/L							10/04/2023	
tert-Butylbenzene	ND	1.0	ug/L							10/04/2023	
tertiary Butyl Alcohol	ND	50	ug/L							10/04/2023	
tertiaryAmylmethylether	ND	5.0	ug/L							10/04/2023	
Tetrachloroethylene	ND	1.0	ug/L							10/04/2023	
Tetrahydrofuran	ND	5.0	ug/L							10/04/2023	
Toluene	ND	1.0	ug/L							10/04/2023	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							10/04/2023	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							10/04/2023	
Trichloroethylene	ND	1.0	ug/L							10/04/2023	
Trichlorofluoromethane	ND	1.0	ug/L							10/04/2023	
Vinyl chloride	ND	1.0	ug/L							10/04/2023	
Surrogate: Bromofluorobenzene	*54.6*		ug/L	*50.00*		*109*	*85-115*			10/04/2023	
Surrogate: Dibromofluoromethane	*49.8*		ug/L	*50.00*		*99.7*	*82.7-115*			10/04/2023	
Surrogate: Toluene-d8	*50.8*		ug/L	*50.00*		*102*	*85-115*			10/04/2023	
LCS (B3J0420-BS1)											
1,1,1,2-Tetrachloroethane	54.2	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,1,1-Trichloroethane	53.9	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,1,2,2-Tetrachloroethane	49.8	1.0	ug/L	50.00		99.7	70-130			10/04/2023	
1,1,2-Trichloroethane	53.1	1.0	ug/L	50.00		106	70-130			10/04/2023	
1,1,2-Trichlorotrifluoroethane	64.3	1.0	ug/L	50.00		129	70-130			10/04/2023	
1,1-Dichloroethane	55.0	1.0	ug/L	50.00		110	70-130			10/04/2023	
1,1-Dichloroethylene	53.0	1.0	ug/L	50.00		106	70-130			10/04/2023	
1,2,3-Trichlorobenzene	52.6	5.0	ug/L	50.00		105	70-130			10/04/2023	
1,2,3-Trichloropropane	49.9	1.0	ug/L	50.00		99.8	70-130			10/04/2023	
1,2,3-Trimethylbenzene	53.8	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,2,4-Trichlorobenzene	52.3	5.0	ug/L	50.00		105	70-130			10/04/2023	
1,2,4-Trimethylbenzene	54.1	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,2-Dibromo-3-chloropropane	49.6	5.0	ug/L	50.00		99.2	70-130			10/04/2023	
1,2-Dibromoethane	53.9	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,2-Dichlorobenzene	54.1	1.0	ug/L	50.00		108	70-130			10/04/2023	
1,2-Dichloroethane	51.9	1.0	ug/L	50.00		104	70-130			10/04/2023	
1,2-Dichloropropane	52.9	1.0	ug/L	50.00		106	70-130			10/04/2023	
1,3,5-Trimethylbenzene	54.3	1.0	ug/L	50.00		109	70-130			10/04/2023	
1,3-Dichlorobenzene	54.8	1.0	ug/L	50.00		110	70-130			10/04/2023	
1,4-Dichlorobenzene	53.0	1.0	ug/L	50.00		106	70-130			10/04/2023	
2,2,4-Trimethylpentane	53.1	5.0	ug/L	50.00		106	70-130			10/04/2023	
2-Butanone (MEK)	46.1	5.0	ug/L	50.00		92.2	70-130			10/04/2023	
2-Methylnaphthalene	45.8	5.0	ug/L	50.00		91.6	70-130			10/04/2023	
2-Propanone (acetone)	45.3	20	ug/L	50.00		90.7	70-130			10/04/2023	
4-Methyl-2-pentanone (MIBK)	51.4	5.0	ug/L	50.00		103	70-130			10/04/2023	
Acrylonitrile	48.7	5.0	ug/L	50.00		97.4	70-130			10/04/2023	
Benzene	52.5	1.0	ug/L	50.00		105	70-130			10/04/2023	

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Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0420 - Method: 5030				**Prepared: 10/04/2023**							
LCS (B3J0420-BS1)											
Bromochloromethane	49.5	1.0	ug/L	50.00		99.1	70-130			10/04/2023	
Bromodichloromethane	51.9	1.0	ug/L	50.00		104	70-130			10/04/2023	
Bromoform	54.6	1.0	ug/L	50.00		109	70-130			10/04/2023	
Bromomethane	45.8	5.0	ug/L	50.00		91.6	70-130			10/04/2023	
Carbon disulfide	55.5	1.0	ug/L	50.00		111	70-130			10/04/2023	
Carbon tetrachloride	52.9	1.0	ug/L	50.00		106	70-130			10/04/2023	
Chlorobenzene	54.2	1.0	ug/L	50.00		108	70-130			10/04/2023	
Chloroethane	53.6	5.0	ug/L	50.00		107	70-130			10/04/2023	
Chloroform	50.8	1.0	ug/L	50.00		102	70-130			10/04/2023	
Chloromethane	55.8	5.0	ug/L	50.00		112	70-130			10/04/2023	
cis-1,2-Dichloroethylene	49.5	1.0	ug/L	50.00		99.0	70-130			10/04/2023	
cis-1,3-Dichloropropylene	55.1	1.0	ug/L	50.00		110	70-130			10/04/2023	
Cyclohexane	52.6	5.0	ug/L	50.00		105	70-130			10/04/2023	
Dibromochloromethane	55.0	1.0	ug/L	50.00		110	70-130			10/04/2023	
Dibromomethane	52.0	1.0	ug/L	50.00		104	70-130			10/04/2023	
Dichlorodifluoromethane	65.6	5.0	ug/L	50.00		131	70-130			10/04/2023	A06, A09
Diethyl ether	51.2	5.0	ug/L	50.00		102	70-130			10/04/2023	
Diisopropyl Ether	54.1	5.0	ug/L	50.00		108	70-130			10/04/2023	
Ethylbenzene	53.4	1.0	ug/L	50.00		107	70-130			10/04/2023	
Ethyltertiarybutylether	50.8	5.0	ug/L	50.00		102	70-130			10/04/2023	
Hexachloroethane	55.3	5.0	ug/L	50.00		111	70-130			10/04/2023	
Hexane	54.5	1.0	ug/L	50.00		109	70-130			10/04/2023	
Isopropylbenzene	53.2	1.0	ug/L	50.00		106	70-130			10/04/2023	
m & p - Xylene	110	2.0	ug/L	100.0		110	70-130			10/04/2023	
Methylcyclopentane	54.0	1.0	ug/L	50.00		108	70-130			10/04/2023	
Methylene chloride	48.2	5.0	ug/L	50.00		96.4	70-130			10/04/2023	
Methyltertiarybutylether	54.9	1.0	ug/L	50.00		110	70-130			10/04/2023	
Naphthalene	50.4	5.0	ug/L	50.00		101	70-130			10/04/2023	
n-Butylbenzene	57.1	1.0	ug/L	50.00		114	70-130			10/04/2023	
n-Heptane	54.1	1.0	ug/L	50.00		108	70-130			10/04/2023	
n-Propylbenzene	53.9	1.0	ug/L	50.00		108	70-130			10/04/2023	
o-Xylene	53.6	1.0	ug/L	50.00		107	70-130			10/04/2023	
sec-Butylbenzene	55.5	1.0	ug/L	50.00		111	70-130			10/04/2023	
Styrene	55.3	1.0	ug/L	50.00		111	70-130			10/04/2023	
tert-Butylbenzene	55.1	1.0	ug/L	50.00		110	70-130			10/04/2023	
tertiary Butyl Alcohol	257	50	ug/L	250.0		103	70-130			10/04/2023	
tertiaryAmylmethylether	52.2	5.0	ug/L	50.00		104	70-130			10/04/2023	
Tetrachloroethylene	54.3	1.0	ug/L	50.00		109	70-130			10/04/2023	
Tetrahydrofuran	50.4	5.0	ug/L	50.00		101	70-130			10/04/2023	
Toluene	52.5	1.0	ug/L	50.00		105	70-130			10/04/2023	
trans-1,2-Dichloroethylene	52.4	1.0	ug/L	50.00		105	70-130			10/04/2023	
trans-1,3-Dichloropropylene	57.2	1.0	ug/L	50.00		114	70-130			10/04/2023	
Trichloroethylene	51.4	1.0	ug/L	50.00		103	70-130			10/04/2023	
Trichlorofluoromethane	52.5	1.0	ug/L	50.00		105	70-130			10/04/2023	
Vinyl chloride	57.1	1.0	ug/L	50.00		114	70-130			10/04/2023	
Surrogate: Bromofluorobenzene	*49.0*		ug/L	*50.00*		*98.0*	*85-115*			10/04/2023	
Surrogate: Dibromofluoromethane	*50.6*		ug/L	*50.00*		*101*	*82.7-115*			10/04/2023	
Surrogate: Toluene-d8	*50.9*		ug/L	*50.00*		*102*	*85-115*			10/04/2023	
Matrix Spike (B3J0420-MS1)	**Source: 2309378-02**										
1,1,1,2-Tetrachloroethane	46.1	1.0	ug/L	50.00	ND	92.1	70-130			10/05/2023	
1,1,1-Trichloroethane	47.4	1.0	ug/L	50.00	ND	94.8	70-130			10/05/2023	

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Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0420 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike (B3J0420-MS1)	**Source: 2309378-02**										
1,1,2,2-Tetrachloroethane	40.5	1.0	ug/L	50.00	ND	80.9	70-130			10/05/2023	
1,1,2-Trichloroethane	43.9	1.0	ug/L	50.00	ND	87.8	70-130			10/05/2023	
1,1,2-Trichlorotrifluoroethane	45.2	1.0	ug/L	50.00	ND	90.4	70-130			10/05/2023	
1,1-Dichloroethane	46.1	1.0	ug/L	50.00	ND	92.3	70-130			10/05/2023	
1,1-Dichloroethylene	45.9	1.0	ug/L	50.00	ND	91.8	70-130			10/05/2023	
1,2,3-Trichlorobenzene	42.5	5.0	ug/L	50.00	ND	85.0	70-130			10/05/2023	
1,2,3-Trichloropropane	41.3	1.0	ug/L	50.00	ND	82.7	70-130			10/05/2023	
1,2,3-Trimethylbenzene	44.9	1.0	ug/L	50.00	ND	89.7	70-130			10/05/2023	
1,2,4-Trichlorobenzene	42.3	5.0	ug/L	50.00	ND	84.5	70-130			10/05/2023	
1,2,4-Trimethylbenzene	45.4	1.0	ug/L	50.00	ND	90.8	70-130			10/05/2023	
1,2-Dibromo-3-chloropropane	39.0	5.0	ug/L	50.00	ND	77.9	70-130			10/05/2023	
1,2-Dibromoethane	45.6	1.0	ug/L	50.00	ND	91.2	70-130			10/05/2023	
1,2-Dichlorobenzene	45.1	1.0	ug/L	50.00	ND	90.1	70-130			10/05/2023	
1,2-Dichloroethane	44.2	1.0	ug/L	50.00	ND	88.4	70-130			10/05/2023	
1,2-Dichloropropane	44.7	1.0	ug/L	50.00	ND	89.4	70-130			10/05/2023	
1,3,5-Trimethylbenzene	46.3	1.0	ug/L	50.00	ND	92.6	70-130			10/05/2023	
1,3-Dichlorobenzene	45.3	1.0	ug/L	50.00	ND	90.6	70-130			10/05/2023	
1,4-Dichlorobenzene	44.4	1.0	ug/L	50.00	ND	88.8	70-130			10/05/2023	
2,2,4-Trimethylpentane	45.5	5.0	ug/L	50.00	ND	91.0	70-130			10/05/2023	
2-Butanone (MEK)	37.1	5.0	ug/L	50.00	ND	74.3	70-130			10/05/2023	
2-Methylnaphthalene	33.8	5.0	ug/L	50.00	ND	67.7	70-130			10/05/2023	A03
2-Propanone (acetone)	45.4	20	ug/L	50.00	ND	90.8	70-130			10/05/2023	
4-Methyl-2-pentanone (MIBK)	42.8	5.0	ug/L	50.00	ND	85.7	70-130			10/05/2023	
Acrylonitrile	40.0	5.0	ug/L	50.00	ND	80.1	70-130			10/05/2023	
Benzene	45.7	1.0	ug/L	50.00	ND	91.4	70-130			10/05/2023	
Bromochloromethane	44.7	1.0	ug/L	50.00	ND	89.4	70-130			10/05/2023	
Bromodichloromethane	42.7	1.0	ug/L	50.00	ND	85.3	70-130			10/05/2023	
Bromoform	44.6	1.0	ug/L	50.00	ND	89.2	70-130			10/05/2023	
Bromomethane	43.2	5.0	ug/L	50.00	ND	86.5	70-130			10/05/2023	
Carbon disulfide	43.1	1.0	ug/L	50.00	ND	86.3	70-130			10/05/2023	
Carbon tetrachloride	45.4	1.0	ug/L	50.00	ND	90.8	70-130			10/05/2023	
Chlorobenzene	46.5	1.0	ug/L	50.00	ND	93.0	70-130			10/05/2023	
Chloroethane	48.8	5.0	ug/L	50.00	ND	97.6	70-130			10/05/2023	
Chloroform	44.3	1.0	ug/L	50.00	ND	88.5	70-130			10/05/2023	
Chloromethane	48.0	5.0	ug/L	50.00	ND	96.1	70-130			10/05/2023	
cis-1,2-Dichloroethylene	41.9	1.0	ug/L	50.00	ND	83.8	70-130			10/05/2023	
cis-1,3-Dichloropropylene	45.0	1.0	ug/L	50.00	ND	90.0	70-130			10/05/2023	
Cyclohexane	47.5	5.0	ug/L	50.00	ND	95.0	70-130			10/05/2023	
Dibromochloromethane	44.1	1.0	ug/L	50.00	ND	88.1	70-130			10/05/2023	
Dibromomethane	43.6	1.0	ug/L	50.00	ND	87.2	70-130			10/05/2023	
Dichlorodifluoromethane	55.2	5.0	ug/L	50.00	ND	110	70-130			10/05/2023	A06
Diethyl ether	41.5	5.0	ug/L	50.00	ND	83.0	70-130			10/05/2023	
Diisopropyl Ether	42.8	5.0	ug/L	50.00	ND	85.6	70-130			10/05/2023	
Ethylbenzene	45.8	1.0	ug/L	50.00	ND	91.5	70-130			10/05/2023	
Ethyltertiarybutylether	40.8	5.0	ug/L	50.00	ND	81.5	70-130			10/05/2023	
Hexachloroethane	43.1	5.0	ug/L	50.00	ND	86.3	70-130			10/05/2023	
Hexane	45.1	1.0	ug/L	50.00	ND	90.2	70-130			10/05/2023	
Isopropylbenzene	45.7	1.0	ug/L	50.00	ND	91.5	70-130			10/05/2023	
m & p - Xylene	95.1	2.0	ug/L	100.0	ND	95.1	70-130			10/05/2023	
Methylcyclopentane	48.0	1.0	ug/L	50.00	ND	96.0	70-130			10/05/2023	
Methylene chloride	43.1	5.0	ug/L	50.00	ND	86.2	70-130			10/05/2023	
Methyltertiarybutylether	41.1	1.0	ug/L	50.00	ND	82.3	70-130			10/05/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0420 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike (B3J0420-MS1)	**Source: 2309378-02**										
Naphthalene	39.9	5.0	ug/L	50.00	ND	79.7	70-130			10/05/2023	
n-Butylbenzene	46.6	1.0	ug/L	50.00	ND	93.2	70-130			10/05/2023	
n-Heptane	47.1	1.0	ug/L	50.00	ND	94.1	70-130			10/05/2023	
n-Propylbenzene	46.5	1.0	ug/L	50.00	ND	93.0	70-130			10/05/2023	
o-Xylene	45.9	1.0	ug/L	50.00	ND	91.9	70-130			10/05/2023	
sec-Butylbenzene	46.6	1.0	ug/L	50.00	ND	93.3	70-130			10/05/2023	
Styrene	49.6	1.0	ug/L	50.00	ND	99.2	70-130			10/05/2023	
tert-Butylbenzene	46.1	1.0	ug/L	50.00	ND	92.3	70-130			10/05/2023	
tertiary Butyl Alcohol	197	50	ug/L	250.0	ND	78.9	70-130			10/05/2023	
tertiaryAmylmethylether	42.7	5.0	ug/L	50.00	ND	85.5	70-130			10/05/2023	
Tetrachloroethylene	47.4	1.0	ug/L	50.00	ND	94.8	70-130			10/05/2023	
Tetrahydrofuran	39.3	5.0	ug/L	50.00	ND	78.6	70-130			10/05/2023	
Toluene	45.9	1.0	ug/L	50.00	ND	91.7	70-130			10/05/2023	
trans-1,2-Dichloroethylene	44.3	1.0	ug/L	50.00	ND	88.7	70-130			10/05/2023	
trans-1,3-Dichloropropylene	45.5	1.0	ug/L	50.00	ND	91.1	70-130			10/05/2023	
Trichloroethylene	44.4	1.0	ug/L	50.00	ND	88.8	70-130			10/05/2023	
Trichlorofluoromethane	46.0	1.0	ug/L	50.00	ND	92.1	70-130			10/05/2023	
Vinyl chloride	48.5	1.0	ug/L	50.00	ND	97.0	70-130			10/05/2023	
Surrogate: Bromofluorobenzene	*47.1*		ug/L	*50.00*		*94.2*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*48.5*		ug/L	*50.00*		*96.9*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*49.5*		ug/L	*50.00*		*99.0*	*85-115*			10/05/2023	
Matrix Spike Dup (B3J0420-MSD1)	**Source: 2309378-02**										
1,1,1,2-Tetrachloroethane	55.6	1.0	ug/L	50.00	ND	111	70-130	18.8	30	10/05/2023	
1,1,1-Trichloroethane	55.2	1.0	ug/L	50.00	ND	110	70-130	15.1	30	10/05/2023	
1,1,2,2-Tetrachloroethane	51.0	1.0	ug/L	50.00	ND	102	70-130	23.0	30	10/05/2023	
1,1,2-Trichloroethane	55.6	1.0	ug/L	50.00	ND	111	70-130	23.5	30	10/05/2023	
1,1,2-Trichlorotrifluoroethane	50.2	1.0	ug/L	50.00	ND	100	70-130	10.5	30	10/05/2023	
1,1-Dichloroethane	53.9	1.0	ug/L	50.00	ND	108	70-130	15.5	30	10/05/2023	
1,1-Dichloroethylene	52.0	1.0	ug/L	50.00	ND	104	70-130	12.4	30	10/05/2023	
1,2,3-Trichlorobenzene	52.3	5.0	ug/L	50.00	ND	105	70-130	20.7	30	10/05/2023	
1,2,3-Trichloropropane	51.9	1.0	ug/L	50.00	ND	104	70-130	22.7	30	10/05/2023	
1,2,3-Trimethylbenzene	53.2	1.0	ug/L	50.00	ND	106	70-130	16.9	30	10/05/2023	
1,2,4-Trichlorobenzene	50.0	5.0	ug/L	50.00	ND	99.9	70-130	16.7	30	10/05/2023	
1,2,4-Trimethylbenzene	52.3	1.0	ug/L	50.00	ND	105	70-130	14.1	30	10/05/2023	
1,2-Dibromo-3-chloropropane	50.4	5.0	ug/L	50.00	ND	101	70-130	25.6	30	10/05/2023	
1,2-Dibromoethane	56.3	1.0	ug/L	50.00	ND	113	70-130	21.1	30	10/05/2023	
1,2-Dichlorobenzene	53.3	1.0	ug/L	50.00	ND	107	70-130	16.8	30	10/05/2023	
1,2-Dichloroethane	54.1	1.0	ug/L	50.00	ND	108	70-130	20.2	30	10/05/2023	
1,2-Dichloropropane	55.1	1.0	ug/L	50.00	ND	110	70-130	20.9	30	10/05/2023	
1,3,5-Trimethylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130	13.4	30	10/05/2023	
1,3-Dichlorobenzene	53.2	1.0	ug/L	50.00	ND	106	70-130	16.1	30	10/05/2023	
1,4-Dichlorobenzene	52.4	1.0	ug/L	50.00	ND	105	70-130	16.6	30	10/05/2023	
2,2,4-Trimethylpentane	46.7	5.0	ug/L	50.00	ND	93.5	70-130	2.67	30	10/05/2023	
2-Butanone (MEK)	47.5	5.0	ug/L	50.00	ND	95.1	70-130	24.6	30	10/05/2023	
2-Methylnaphthalene	45.6	5.0	ug/L	50.00	ND	91.2	70-130	29.6	30	10/05/2023	
2-Propanone (acetone)	46.0	20	ug/L	50.00	ND	92.0	70-130	1.36	30	10/05/2023	
4-Methyl-2-pentanone (MIBK)	53.8	5.0	ug/L	50.00	ND	108	70-130	22.7	30	10/05/2023	
Acrylonitrile	46.5	5.0	ug/L	50.00	ND	92.9	70-130	14.9	30	10/05/2023	
Benzene	53.6	1.0	ug/L	50.00	ND	107	70-130	15.9	30	10/05/2023	
Bromochloromethane	54.8	1.0	ug/L	50.00	ND	110	70-130	20.3	30	10/05/2023	
Bromodichloromethane	52.6	1.0	ug/L	50.00	ND	105	70-130	20.9	30	10/05/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0420 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike Dup (B3J0420-MSD1)	**Source: 2309378-02**										
Bromoform	55.7	1.0	ug/L	50.00	ND	111	70-130	22.3	30	10/05/2023	
Bromomethane	50.4	5.0	ug/L	50.00	ND	101	70-130	15.2	30	10/05/2023	
Carbon disulfide	47.7	1.0	ug/L	50.00	ND	95.4	70-130	10.1	30	10/05/2023	
Carbon tetrachloride	53.7	1.0	ug/L	50.00	ND	107	70-130	16.7	30	10/05/2023	
Chlorobenzene	55.1	1.0	ug/L	50.00	ND	110	70-130	17.0	30	10/05/2023	
Chloroethane	55.0	5.0	ug/L	50.00	ND	110	70-130	11.8	30	10/05/2023	
Chloroform	51.8	1.0	ug/L	50.00	ND	104	70-130	15.8	30	10/05/2023	
Chloromethane	55.4	5.0	ug/L	50.00	ND	111	70-130	14.2	30	10/05/2023	
cis-1,2-Dichloroethylene	50.6	1.0	ug/L	50.00	ND	101	70-130	18.7	30	10/05/2023	
cis-1,3-Dichloropropylene	55.8	1.0	ug/L	50.00	ND	112	70-130	21.4	30	10/05/2023	
Cyclohexane	53.4	5.0	ug/L	50.00	ND	107	70-130	11.7	30	10/05/2023	
Dibromochloromethane	55.4	1.0	ug/L	50.00	ND	111	70-130	22.8	30	10/05/2023	
Dibromomethane	54.5	1.0	ug/L	50.00	ND	109	70-130	22.3	30	10/05/2023	
Dichlorodifluoromethane	62.3	5.0	ug/L	50.00	ND	125	70-130	12.0	30	10/05/2023	A04, A06
Diethyl ether	50.2	5.0	ug/L	50.00	ND	100	70-130	18.9	30	10/05/2023	
Diisopropyl Ether	53.7	5.0	ug/L	50.00	ND	107	70-130	22.6	30	10/05/2023	
Ethylbenzene	53.1	1.0	ug/L	50.00	ND	106	70-130	14.8	30	10/05/2023	
Ethyltertiarybutylether	52.8	5.0	ug/L	50.00	ND	106	70-130	25.8	30	10/05/2023	
Hexachloroethane	52.1	5.0	ug/L	50.00	ND	104	70-130	18.9	30	10/05/2023	
Hexane	43.6	1.0	ug/L	50.00	ND	87.3	70-130	3.30	30	10/05/2023	
Isopropylbenzene	52.5	1.0	ug/L	50.00	ND	105	70-130	13.7	30	10/05/2023	
m & p - Xylene	109	2.0	ug/L	100.0	ND	109	70-130	13.7	30	10/05/2023	
Methylcyclopentane	56.1	1.0	ug/L	50.00	ND	112	70-130	15.6	30	10/05/2023	
Methylene chloride	51.9	5.0	ug/L	50.00	ND	104	70-130	18.5	30	10/05/2023	
Methyltertiarybutylether	53.1	1.0	ug/L	50.00	ND	106	70-130	25.4	30	10/05/2023	
Naphthalene	51.2	5.0	ug/L	50.00	ND	102	70-130	24.8	30	10/05/2023	
n-Butylbenzene	50.9	1.0	ug/L	50.00	ND	102	70-130	8.75	30	10/05/2023	
n-Heptane	43.6	1.0	ug/L	50.00	ND	87.2	70-130	7.63	30	10/05/2023	
n-Propylbenzene	52.5	1.0	ug/L	50.00	ND	105	70-130	12.1	30	10/05/2023	
o-Xylene	54.9	1.0	ug/L	50.00	ND	110	70-130	17.9	30	10/05/2023	
sec-Butylbenzene	53.2	1.0	ug/L	50.00	ND	106	70-130	13.1	30	10/05/2023	
Styrene	59.6	1.0	ug/L	50.00	ND	119	70-130	18.3	30	10/05/2023	
tert-Butylbenzene	54.4	1.0	ug/L	50.00	ND	109	70-130	16.5	30	10/05/2023	
tertiary Butyl Alcohol	262	50	ug/L	250.0	ND	105	70-130	28.1	30	10/05/2023	
tertiaryAmylmethylether	55.1	5.0	ug/L	50.00	ND	110	70-130	25.2	30	10/05/2023	
Tetrachloroethylene	53.0	1.0	ug/L	50.00	ND	106	70-130	11.2	30	10/05/2023	
Tetrahydrofuran	51.3	5.0	ug/L	50.00	ND	103	70-130	26.4	30	10/05/2023	
Toluene	53.7	1.0	ug/L	50.00	ND	107	70-130	15.7	30	10/05/2023	
trans-1,2-Dichloroethylene	50.9	1.0	ug/L	50.00	ND	102	70-130	13.7	30	10/05/2023	
trans-1,3-Dichloropropylene	56.4	1.0	ug/L	50.00	ND	113	70-130	21.3	30	10/05/2023	
Trichloroethylene	53.5	1.0	ug/L	50.00	ND	107	70-130	18.5	30	10/05/2023	
Trichlorofluoromethane	52.1	1.0	ug/L	50.00	ND	104	70-130	12.4	30	10/05/2023	
Vinyl chloride	55.1	1.0	ug/L	50.00	ND	110	70-130	12.7	30	10/05/2023	
Surrogate: Bromofluorobenzene	*47.9*		ug/L	*50.00*		*95.7*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*50.4*		ug/L	*50.00*		*101*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*50.3*		ug/L	*50.00*		*101*	*85-115*			10/05/2023	
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Blank (B3J0503-BLK1)											
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							10/05/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Blank (B3J0503-BLK1)											
1,1,1-Trichloroethane	ND	1.0	ug/L							10/05/2023	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							10/05/2023	
1,1,2-Trichloroethane	ND	1.0	ug/L							10/05/2023	
1,1,2-Trichlorotrifluoroethane	ND	1.0	ug/L							10/05/2023	
1,1-Dichloroethane	ND	1.0	ug/L							10/05/2023	
1,1-Dichloroethylene	ND	1.0	ug/L							10/05/2023	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							10/05/2023	
1,2,3-Trichloropropane	ND	1.0	ug/L							10/05/2023	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							10/05/2023	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							10/05/2023	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							10/05/2023	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L							10/05/2023	
1,2-Dibromoethane	ND	1.0	ug/L							10/05/2023	
1,2-Dichlorobenzene	ND	1.0	ug/L							10/05/2023	
1,2-Dichloroethane	ND	1.0	ug/L							10/05/2023	
1,2-Dichloropropane	ND	1.0	ug/L							10/05/2023	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							10/05/2023	
1,3-Dichlorobenzene	ND	1.0	ug/L							10/05/2023	
1,4-Dichlorobenzene	ND	1.0	ug/L							10/05/2023	
2,2,4-Trimethylpentane	ND	5.0	ug/L							10/05/2023	
2-Butanone (MEK)	ND	5.0	ug/L							10/05/2023	
2-Methylnaphthalene	ND	5.0	ug/L							10/05/2023	A05
2-Propanone (acetone)	ND	20	ug/L							10/05/2023	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							10/05/2023	
Acrylonitrile	ND	5.0	ug/L							10/05/2023	
Benzene	ND	1.0	ug/L							10/05/2023	
Bromochloromethane	ND	1.0	ug/L							10/05/2023	
Bromodichloromethane	ND	1.0	ug/L							10/05/2023	
Bromoform	ND	1.0	ug/L							10/05/2023	
Bromomethane	ND	5.0	ug/L							10/05/2023	
Carbon disulfide	ND	1.0	ug/L							10/05/2023	
Carbon tetrachloride	ND	1.0	ug/L							10/05/2023	
Chlorobenzene	ND	1.0	ug/L							10/05/2023	
Chloroethane	ND	5.0	ug/L							10/05/2023	
Chloroform	ND	1.0	ug/L							10/05/2023	
Chloromethane	ND	5.0	ug/L							10/05/2023	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							10/05/2023	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							10/05/2023	
Cyclohexane	ND	5.0	ug/L							10/05/2023	
Dibromochloromethane	ND	1.0	ug/L							10/05/2023	
Dibromomethane	ND	1.0	ug/L							10/05/2023	
Dichlorodifluoromethane	ND	5.0	ug/L							10/05/2023	
Diethyl ether	ND	5.0	ug/L							10/05/2023	
Diisopropyl Ether	ND	5.0	ug/L							10/05/2023	
Ethylbenzene	ND	1.0	ug/L							10/05/2023	
Ethyltertiarybutylether	ND	5.0	ug/L							10/05/2023	
Hexachloroethane	ND	5.0	ug/L							10/05/2023	
Hexane	ND	1.0	ug/L							10/05/2023	
Isopropylbenzene	ND	1.0	ug/L							10/05/2023	
m & p - Xylene	ND	2.0	ug/L							10/05/2023	
Methylcyclopentane	ND	1.0	ug/L							10/05/2023	
Methylene chloride	ND	5.0	ug/L							10/05/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Blank (B3J0503-BLK1)											
Methyltertiarybutylether	ND	1.0	ug/L							10/05/2023	
Naphthalene	ND	5.0	ug/L							10/05/2023	
n-Butylbenzene	ND	1.0	ug/L							10/05/2023	
n-Heptane	ND	1.0	ug/L							10/05/2023	
n-Propylbenzene	ND	1.0	ug/L							10/05/2023	
o-Xylene	ND	1.0	ug/L							10/05/2023	
sec-Butylbenzene	ND	1.0	ug/L							10/05/2023	
Styrene	ND	1.0	ug/L							10/05/2023	
tert-Butylbenzene	ND	1.0	ug/L							10/05/2023	
tertiary Butyl Alcohol	ND	50	ug/L							10/05/2023	
tertiaryAmylmethylether	ND	5.0	ug/L							10/05/2023	
Tetrachloroethylene	ND	1.0	ug/L							10/05/2023	
Tetrahydrofuran	ND	5.0	ug/L							10/05/2023	
Toluene	ND	1.0	ug/L							10/05/2023	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							10/05/2023	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							10/05/2023	
Trichloroethylene	ND	1.0	ug/L							10/05/2023	
Trichlorofluoromethane	ND	1.0	ug/L							10/05/2023	
Vinyl chloride	ND	1.0	ug/L							10/05/2023	
Surrogate: Bromofluorobenzene	*46.8*		ug/L	*50.00*		*93.6*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*48.7*		ug/L	*50.00*		*97.4*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*46.7*		ug/L	*50.00*		*93.3*	*85-115*			10/05/2023	
LCS (B3J0503-BS1)											
1,1,1,2-Tetrachloroethane	48.1	1.0	ug/L	50.00		96.2	70-130			10/05/2023	
1,1,1-Trichloroethane	49.7	1.0	ug/L	50.00		99.4	70-130			10/05/2023	
1,1,2,2-Tetrachloroethane	49.8	1.0	ug/L	50.00		99.7	70-130			10/05/2023	
1,1,2-Trichloroethane	50.8	1.0	ug/L	50.00		102	70-130			10/05/2023	
1,1,2-Trichlorotrifluoroethane	42.9	1.0	ug/L	50.00		85.8	70-130			10/05/2023	
1,1-Dichloroethane	48.8	1.0	ug/L	50.00		97.7	70-130			10/05/2023	
1,1-Dichloroethylene	43.5	1.0	ug/L	50.00		87.1	70-130			10/05/2023	
1,2,3-Trichlorobenzene	50.9	5.0	ug/L	50.00		102	70-130			10/05/2023	
1,2,3-Trichloropropane	50.4	1.0	ug/L	50.00		101	70-130			10/05/2023	
1,2,3-Trimethylbenzene	48.3	1.0	ug/L	50.00		96.6	70-130			10/05/2023	
1,2,4-Trichlorobenzene	50.9	5.0	ug/L	50.00		102	70-130			10/05/2023	
1,2,4-Trimethylbenzene	49.6	1.0	ug/L	50.00		99.2	70-130			10/05/2023	
1,2-Dibromo-3-chloropropane	50.8	5.0	ug/L	50.00		102	70-130			10/05/2023	
1,2-Dibromoethane	50.8	1.0	ug/L	50.00		102	70-130			10/05/2023	
1,2-Dichlorobenzene	50.2	1.0	ug/L	50.00		100	70-130			10/05/2023	
1,2-Dichloroethane	50.2	1.0	ug/L	50.00		100	70-130			10/05/2023	
1,2-Dichloropropane	49.1	1.0	ug/L	50.00		98.3	70-130			10/05/2023	
1,3,5-Trimethylbenzene	49.5	1.0	ug/L	50.00		99.0	70-130			10/05/2023	
1,3-Dichlorobenzene	49.8	1.0	ug/L	50.00		99.6	70-130			10/05/2023	
1,4-Dichlorobenzene	49.8	1.0	ug/L	50.00		99.5	70-130			10/05/2023	
2,2,4-Trimethylpentane	45.8	5.0	ug/L	50.00		91.5	70-130			10/05/2023	
2-Butanone (MEK)	45.9	5.0	ug/L	50.00		91.9	70-130			10/05/2023	
2-Methylnaphthalene	41.8	5.0	ug/L	50.00		83.6	70-130			10/05/2023	A05
2-Propanone (acetone)	48.1	20	ug/L	50.00		96.3	70-130			10/05/2023	
4-Methyl-2-pentanone (MIBK)	48.1	5.0	ug/L	50.00		96.3	70-130			10/05/2023	
Acrylonitrile	48.5	5.0	ug/L	50.00		97.0	70-130			10/05/2023	
Benzene	47.8	1.0	ug/L	50.00		95.7	70-130			10/05/2023	
Bromochloromethane	48.7	1.0	ug/L	50.00		97.4	70-130			10/05/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
LCS (B3J0503-BS1)											
Bromodichloromethane	50.8	1.0	ug/L	50.00		102	70-130			10/05/2023	
Bromoform	51.9	1.0	ug/L	50.00		104	70-130			10/05/2023	
Bromomethane	44.4	5.0	ug/L	50.00		88.7	70-130			10/05/2023	
Carbon disulfide	42.7	1.0	ug/L	50.00		85.4	70-130			10/05/2023	
Carbon tetrachloride	47.2	1.0	ug/L	50.00		94.5	70-130			10/05/2023	
Chlorobenzene	49.8	1.0	ug/L	50.00		99.5	70-130			10/05/2023	
Chloroethane	45.3	5.0	ug/L	50.00		90.6	70-130			10/05/2023	
Chloroform	49.4	1.0	ug/L	50.00		98.8	70-130			10/05/2023	
Chloromethane	50.2	5.0	ug/L	50.00		100	70-130			10/05/2023	
cis-1,2-Dichloroethylene	46.7	1.0	ug/L	50.00		93.3	70-130			10/05/2023	
cis-1,3-Dichloropropylene	49.6	1.0	ug/L	50.00		99.2	70-130			10/05/2023	
Cyclohexane	41.6	5.0	ug/L	50.00		83.1	70-130			10/05/2023	
Dibromochloromethane	49.0	1.0	ug/L	50.00		98.0	70-130			10/05/2023	
Dibromomethane	50.4	1.0	ug/L	50.00		101	70-130			10/05/2023	
Dichlorodifluoromethane	49.7	5.0	ug/L	50.00		99.5	70-130			10/05/2023	
Diethyl ether	47.5	5.0	ug/L	50.00		94.9	70-130			10/05/2023	
Diisopropyl Ether	45.9	5.0	ug/L	50.00		91.8	70-130			10/05/2023	
Ethylbenzene	47.6	1.0	ug/L	50.00		95.3	70-130			10/05/2023	
Ethyltertiarybutylether	49.0	5.0	ug/L	50.00		98.0	70-130			10/05/2023	
Hexachloroethane	48.4	5.0	ug/L	50.00		96.8	70-130			10/05/2023	
Hexane	44.5	1.0	ug/L	50.00		89.1	70-130			10/05/2023	
Isopropylbenzene	48.2	1.0	ug/L	50.00		96.5	70-130			10/05/2023	
m & p - Xylene	97.9	2.0	ug/L	100.0		97.9	70-130			10/05/2023	
Methylcyclopentane	42.9	1.0	ug/L	50.00		85.9	70-130			10/05/2023	
Methylene chloride	46.9	5.0	ug/L	50.00		93.9	70-130			10/05/2023	
Methyltertiarybutylether	49.9	1.0	ug/L	50.00		99.8	70-130			10/05/2023	
Naphthalene	50.4	5.0	ug/L	50.00		101	70-130			10/05/2023	
n-Butylbenzene	49.0	1.0	ug/L	50.00		98.0	70-130			10/05/2023	
n-Heptane	49.7	1.0	ug/L	50.00		99.4	70-130			10/05/2023	
n-Propylbenzene	48.8	1.0	ug/L	50.00		97.6	70-130			10/05/2023	
o-Xylene	49.1	1.0	ug/L	50.00		98.2	70-130			10/05/2023	
sec-Butylbenzene	48.3	1.0	ug/L	50.00		96.7	70-130			10/05/2023	
Styrene	48.5	1.0	ug/L	50.00		97.0	70-130			10/05/2023	
tert-Butylbenzene	48.2	1.0	ug/L	50.00		96.5	70-130			10/05/2023	
tertiary Butyl Alcohol	243	50	ug/L	250.0		97.3	70-130			10/05/2023	
tertiaryAmylmethylether	49.9	5.0	ug/L	50.00		99.7	70-130			10/05/2023	
Tetrachloroethylene	48.1	1.0	ug/L	50.00		96.2	70-130			10/05/2023	
Tetrahydrofuran	49.3	5.0	ug/L	50.00		98.7	70-130			10/05/2023	
Toluene	47.9	1.0	ug/L	50.00		95.8	70-130			10/05/2023	
trans-1,2-Dichloroethylene	47.5	1.0	ug/L	50.00		94.9	70-130			10/05/2023	
trans-1,3-Dichloropropylene	50.6	1.0	ug/L	50.00		101	70-130			10/05/2023	
Trichloroethylene	49.6	1.0	ug/L	50.00		99.2	70-130			10/05/2023	
Trichlorofluoromethane	46.8	1.0	ug/L	50.00		93.5	70-130			10/05/2023	
Vinyl chloride	48.1	1.0	ug/L	50.00		96.1	70-130			10/05/2023	
Surrogate: Bromofluorobenzene	*50.0*		ug/L	*50.00*		*99.9*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*50.8*		ug/L	*50.00*		*102*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*50.7*		ug/L	*50.00*		*101*	*85-115*			10/05/2023	
Matrix Spike (B3J0503-MS1)	**Source: 2309378-03**										
1,1,1,2-Tetrachloroethane	50.7	1.0	ug/L	50.00	ND	101	70-130			10/05/2023	
1,1,1-Trichloroethane	55.9	1.0	ug/L	50.00	ND	112	70-130			10/05/2023	
1,1,2,2-Tetrachloroethane	49.4	1.0	ug/L	50.00	ND	98.8	70-130			10/05/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike (B3J0503-MS1)	**Source: 2309378-03**										
1,1,2-Trichloroethane	52.8	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
1,1,2-Trichlorotrifluoroethane	52.9	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
1,1-Dichloroethane	52.4	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
1,1-Dichloroethylene	51.3	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
1,2,3-Trichlorobenzene	50.8	5.0	ug/L	50.00	ND	102	70-130			10/05/2023	
1,2,3-Trichloropropane	50.4	1.0	ug/L	50.00	ND	101	70-130			10/05/2023	
1,2,3-Trimethylbenzene	50.6	1.0	ug/L	50.00	ND	101	70-130			10/05/2023	
1,2,4-Trichlorobenzene	50.8	5.0	ug/L	50.00	ND	102	70-130			10/05/2023	
1,2,4-Trimethylbenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
1,2-Dibromo-3-chloropropane	49.5	5.0	ug/L	50.00	ND	98.9	70-130			10/05/2023	
1,2-Dibromoethane	51.2	1.0	ug/L	50.00	ND	102	70-130			10/05/2023	
1,2-Dichlorobenzene	51.5	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
1,2-Dichloroethane	52.0	1.0	ug/L	50.00	ND	104	70-130			10/05/2023	
1,2-Dichloropropane	52.8	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
1,3,5-Trimethylbenzene	52.5	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
1,3-Dichlorobenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
1,4-Dichlorobenzene	51.5	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
2,2,4-Trimethylpentane	52.3	5.0	ug/L	50.00	ND	105	70-130			10/05/2023	
2-Butanone (MEK)	45.0	5.0	ug/L	50.00	ND	90.0	70-130			10/05/2023	
2-Methylnaphthalene	40.2	5.0	ug/L	50.00	ND	80.4	70-130			10/05/2023	A05
2-Propanone (acetone)	49.8	20	ug/L	50.00	ND	99.6	70-130			10/05/2023	
4-Methyl-2-pentanone (MIBK)	47.6	5.0	ug/L	50.00	ND	95.1	70-130			10/05/2023	
Acrylonitrile	48.8	5.0	ug/L	50.00	ND	97.5	70-130			10/05/2023	
Benzene	51.9	1.0	ug/L	50.00	ND	104	70-130			10/05/2023	
Bromochloromethane	51.1	1.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Bromodichloromethane	51.4	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
Bromoform	51.4	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
Bromomethane	52.1	5.0	ug/L	50.00	ND	104	70-130			10/05/2023	
Carbon disulfide	47.8	1.0	ug/L	50.00	ND	95.6	70-130			10/05/2023	
Carbon tetrachloride	53.3	1.0	ug/L	50.00	ND	107	70-130			10/05/2023	
Chlorobenzene	53.1	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
Chloroethane	51.0	5.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Chloroform	52.3	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
Chloromethane	55.1	5.0	ug/L	50.00	ND	110	70-130			10/05/2023	
cis-1,2-Dichloroethylene	50.6	1.0	ug/L	50.00	ND	101	70-130			10/05/2023	
cis-1,3-Dichloropropylene	50.5	1.0	ug/L	50.00	ND	101	70-130			10/05/2023	
Cyclohexane	51.2	5.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Dibromochloromethane	49.2	1.0	ug/L	50.00	ND	98.4	70-130			10/05/2023	
Dibromomethane	51.2	1.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Dichlorodifluoromethane	60.9	5.0	ug/L	50.00	ND	122	70-130			10/05/2023	
Diethyl ether	48.3	5.0	ug/L	50.00	ND	96.6	70-130			10/05/2023	
Diisopropyl Ether	48.0	5.0	ug/L	50.00	ND	96.1	70-130			10/05/2023	
Ethylbenzene	51.3	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
Ethyltertiarybutylether	49.8	5.0	ug/L	50.00	ND	99.6	70-130			10/05/2023	
Hexachloroethane	50.4	5.0	ug/L	50.00	ND	101	70-130			10/05/2023	
Hexane	52.0	1.0	ug/L	50.00	ND	104	70-130			10/05/2023	
Isopropylbenzene	52.0	1.0	ug/L	50.00	ND	104	70-130			10/05/2023	
m & p - Xylene	106	2.0	ug/L	100.0	ND	106	70-130			10/05/2023	
Methylcyclopentane	53.0	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
Methylene chloride	50.0	5.0	ug/L	50.00	ND	100	70-130			10/05/2023	
Methyltertiarybutylether	50.8	1.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Naphthalene	49.5	5.0	ug/L	50.00	ND	98.9	70-130			10/05/2023	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike (B3J0503-MS1)	**Source: 2309378-03**										
n-Butylbenzene	52.8	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
n-Heptane	57.3	1.0	ug/L	50.00	ND	115	70-130			10/05/2023	
n-Propylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
o-Xylene	52.9	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
sec-Butylbenzene	52.9	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
Styrene	54.0	1.0	ug/L	50.00	ND	108	70-130			10/05/2023	
tert-Butylbenzene	52.8	1.0	ug/L	50.00	ND	106	70-130			10/05/2023	
tertiary Butyl Alcohol	230	50	ug/L	250.0	ND	91.9	70-130			10/05/2023	
tertiaryAmylmethylether	49.6	5.0	ug/L	50.00	ND	99.2	70-130			10/05/2023	
Tetrachloroethylene	54.2	1.0	ug/L	50.00	ND	108	70-130			10/05/2023	
Tetrahydrofuran	47.8	5.0	ug/L	50.00	ND	95.7	70-130			10/05/2023	
Toluene	51.6	1.0	ug/L	50.00	ND	103	70-130			10/05/2023	
trans-1,2-Dichloroethylene	52.4	1.0	ug/L	50.00	ND	105	70-130			10/05/2023	
trans-1,3-Dichloropropylene	50.9	1.0	ug/L	50.00	ND	102	70-130			10/05/2023	
Trichloroethylene	54.5	1.0	ug/L	50.00	ND	109	70-130			10/05/2023	
Trichlorofluoromethane	56.4	1.0	ug/L	50.00	ND	113	70-130			10/05/2023	
Vinyl chloride	55.2	1.0	ug/L	50.00	ND	110	70-130			10/05/2023	
Surrogate: Bromofluorobenzene	*49.6*		ug/L	*50.00*		*99.1*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*51.3*		ug/L	*50.00*		*103*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*51.3*		ug/L	*50.00*		*103*	*85-115*			10/05/2023	
Matrix Spike Dup (B3J0503-MSD1)	**Source: 2309378-03**										
1,1,1,2-Tetrachloroethane	50.4	1.0	ug/L	50.00	ND	101	70-130	0.590	30	10/05/2023	
1,1,1-Trichloroethane	55.5	1.0	ug/L	50.00	ND	111	70-130	0.800	30	10/05/2023	
1,1,2,2-Tetrachloroethane	49.3	1.0	ug/L	50.00	ND	98.6	70-130	0.192	30	10/05/2023	
1,1,2-Trichloroethane	53.1	1.0	ug/L	50.00	ND	106	70-130	0.555	30	10/05/2023	
1,1,2-Trichlorotrifluoroethane	51.3	1.0	ug/L	50.00	ND	103	70-130	3.01	30	10/05/2023	
1,1-Dichloroethane	53.0	1.0	ug/L	50.00	ND	106	70-130	1.07	30	10/05/2023	
1,1-Dichloroethylene	50.7	1.0	ug/L	50.00	ND	101	70-130	1.20	30	10/05/2023	
1,2,3-Trichlorobenzene	51.8	5.0	ug/L	50.00	ND	104	70-130	1.83	30	10/05/2023	
1,2,3-Trichloropropane	50.0	1.0	ug/L	50.00	ND	100	70-130	0.814	30	10/05/2023	
1,2,3-Trimethylbenzene	50.4	1.0	ug/L	50.00	ND	101	70-130	0.479	30	10/05/2023	
1,2,4-Trichlorobenzene	51.8	5.0	ug/L	50.00	ND	104	70-130	1.83	30	10/05/2023	
1,2,4-Trimethylbenzene	52.1	1.0	ug/L	50.00	ND	104	70-130	0.469	30	10/05/2023	
1,2-Dibromo-3-chloropropane	50.2	5.0	ug/L	50.00	ND	100	70-130	1.47	30	10/05/2023	
1,2-Dibromoethane	52.3	1.0	ug/L	50.00	ND	105	70-130	2.13	30	10/05/2023	
1,2-Dichlorobenzene	52.1	1.0	ug/L	50.00	ND	104	70-130	1.04	30	10/05/2023	
1,2-Dichloroethane	52.2	1.0	ug/L	50.00	ND	104	70-130	0.386	30	10/05/2023	
1,2-Dichloropropane	51.5	1.0	ug/L	50.00	ND	103	70-130	2.52	30	10/05/2023	
1,3,5-Trimethylbenzene	52.4	1.0	ug/L	50.00	ND	105	70-130	0.200	30	10/05/2023	
1,3-Dichlorobenzene	52.3	1.0	ug/L	50.00	ND	105	70-130	0.0793	30	10/05/2023	
1,4-Dichlorobenzene	51.7	1.0	ug/L	50.00	ND	103	70-130	0.394	30	10/05/2023	
2,2,4-Trimethylpentane	49.1	5.0	ug/L	50.00	ND	98.2	70-130	6.34	30	10/05/2023	
2-Butanone (MEK)	46.3	5.0	ug/L	50.00	ND	92.5	70-130	2.76	30	10/05/2023	
2-Methylnaphthalene	42.3	5.0	ug/L	50.00	ND	84.5	70-130	5.05	30	10/05/2023	A05
2-Propanone (acetone)	49.6	20	ug/L	50.00	ND	99.2	70-130	0.400	30	10/05/2023	
4-Methyl-2-pentanone (MIBK)	48.4	5.0	ug/L	50.00	ND	96.8	70-130	1.76	30	10/05/2023	
Acrylonitrile	48.3	5.0	ug/L	50.00	ND	96.6	70-130	0.905	30	10/05/2023	
Benzene	50.7	1.0	ug/L	50.00	ND	101	70-130	2.29	30	10/05/2023	
Bromochloromethane	51.0	1.0	ug/L	50.00	ND	102	70-130	0.148	30	10/05/2023	
Bromodichloromethane	51.7	1.0	ug/L	50.00	ND	103	70-130	0.611	30	10/05/2023	
Bromoform	53.4	1.0	ug/L	50.00	ND	107	70-130	3.87	30	10/05/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0503 - Method: 5030				**Prepared: 10/05/2023**							
Matrix Spike Dup (B3J0503-MSD1)	**Source: 2309378-03**										
Bromomethane	53.7	5.0	ug/L	50.00	ND	107	70-130	3.07	30	10/05/2023	
Carbon disulfide	49.3	1.0	ug/L	50.00	ND	98.5	70-130	2.97	30	10/05/2023	
Carbon tetrachloride	53.3	1.0	ug/L	50.00	ND	107	70-130	0.101	30	10/05/2023	
Chlorobenzene	53.4	1.0	ug/L	50.00	ND	107	70-130	0.415	30	10/05/2023	
Chloroethane	50.0	5.0	ug/L	50.00	ND	100	70-130	2.01	30	10/05/2023	
Chloroform	53.5	1.0	ug/L	50.00	ND	107	70-130	2.29	30	10/05/2023	
Chloromethane	55.0	5.0	ug/L	50.00	ND	110	70-130	0.154	30	10/05/2023	
cis-1,2-Dichloroethylene	50.6	1.0	ug/L	50.00	ND	101	70-130	0.162	30	10/05/2023	
cis-1,3-Dichloropropylene	50.6	1.0	ug/L	50.00	ND	101	70-130	0.309	30	10/05/2023	
Cyclohexane	50.0	5.0	ug/L	50.00	ND	100	70-130	2.34	30	10/05/2023	
Dibromochloromethane	50.2	1.0	ug/L	50.00	ND	100	70-130	1.98	30	10/05/2023	
Dibromomethane	50.8	1.0	ug/L	50.00	ND	102	70-130	0.801	30	10/05/2023	
Dichlorodifluoromethane	59.0	5.0	ug/L	50.00	ND	118	70-130	3.26	30	10/05/2023	
Diethyl ether	49.3	5.0	ug/L	50.00	ND	98.5	70-130	1.93	30	10/05/2023	
Diisopropyl Ether	48.7	5.0	ug/L	50.00	ND	97.4	70-130	1.34	30	10/05/2023	
Ethylbenzene	52.1	1.0	ug/L	50.00	ND	104	70-130	1.50	30	10/05/2023	
Ethyltertiarybutylether	49.2	5.0	ug/L	50.00	ND	98.5	70-130	1.10	30	10/05/2023	
Hexachloroethane	51.8	5.0	ug/L	50.00	ND	104	70-130	2.75	30	10/05/2023	
Hexane	47.7	1.0	ug/L	50.00	ND	95.4	70-130	8.55	30	10/05/2023	
Isopropylbenzene	52.0	1.0	ug/L	50.00	ND	104	70-130	0.0240	30	10/05/2023	
m & p - Xylene	107	2.0	ug/L	100.0	ND	107	70-130	0.163	30	10/05/2023	
Methylcyclopentane	54.3	1.0	ug/L	50.00	ND	109	70-130	2.37	30	10/05/2023	
Methylene chloride	50.0	5.0	ug/L	50.00	ND	100	70-130	0.00240	30	10/05/2023	
Methyltertiarybutylether	51.6	1.0	ug/L	50.00	ND	103	70-130	1.58	30	10/05/2023	
Naphthalene	51.1	5.0	ug/L	50.00	ND	102	70-130	3.21	30	10/05/2023	
n-Butylbenzene	52.1	1.0	ug/L	50.00	ND	104	70-130	1.33	30	10/05/2023	
n-Heptane	51.2	1.0	ug/L	50.00	ND	102	70-130	11.3	30	10/05/2023	
n-Propylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130	0.0843	30	10/05/2023	
o-Xylene	53.0	1.0	ug/L	50.00	ND	106	70-130	0.0804	30	10/05/2023	
sec-Butylbenzene	53.3	1.0	ug/L	50.00	ND	107	70-130	0.738	30	10/05/2023	
Styrene	54.4	1.0	ug/L	50.00	ND	109	70-130	0.698	30	10/05/2023	
tert-Butylbenzene	52.8	1.0	ug/L	50.00	ND	106	70-130	0.0354	30	10/05/2023	
tertiary Butyl Alcohol	240	50	ug/L	250.0	ND	96.1	70-130	4.47	30	10/05/2023	
tertiaryAmylmethylether	49.3	5.0	ug/L	50.00	ND	98.6	70-130	0.584	30	10/05/2023	
Tetrachloroethylene	53.5	1.0	ug/L	50.00	ND	107	70-130	1.34	30	10/05/2023	
Tetrahydrofuran	48.9	5.0	ug/L	50.00	ND	97.8	70-130	2.22	30	10/05/2023	
Toluene	51.8	1.0	ug/L	50.00	ND	104	70-130	0.525	30	10/05/2023	
trans-1,2-Dichloroethylene	52.6	1.0	ug/L	50.00	ND	105	70-130	0.373	30	10/05/2023	
trans-1,3-Dichloropropylene	50.6	1.0	ug/L	50.00	ND	101	70-130	0.440	30	10/05/2023	
Trichloroethylene	52.7	1.0	ug/L	50.00	ND	105	70-130	3.34	30	10/05/2023	
Trichlorofluoromethane	56.3	1.0	ug/L	50.00	ND	113	70-130	0.160	30	10/05/2023	
Vinyl chloride	56.1	1.0	ug/L	50.00	ND	112	70-130	1.77	30	10/05/2023	
Surrogate: Bromofluorobenzene	*50.9*		ug/L	*50.00*		*102*	*85-115*			10/05/2023	
Surrogate: Dibromofluoromethane	*51.0*		ug/L	*50.00*		*102*	*82.7-115*			10/05/2023	
Surrogate: Toluene-d8	*51.6*		ug/L	*50.00*		*103*	*85-115*			10/05/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0220 - Method: 3510 Water SVOC				**Prepared: 10/02/2023**							
Blank (B3J0220-BLK1)											
2-Methylnaphthalene	ND	5.0	ug/L							10/03/2023	
Acenaphthene	ND	1.0	ug/L							10/03/2023	
Acenaphthylene	ND	1.0	ug/L							10/03/2023	
Anthracene	ND	1.0	ug/L							10/03/2023	
Benz[a]anthracene	ND	1.0	ug/L							10/03/2023	
Benzo[a]pyrene	ND	1.0	ug/L							10/03/2023	
Benzo[b]fluoranthene	ND	1.0	ug/L							10/03/2023	
Benzo[g,h,i]perylene	ND	1.0	ug/L							10/03/2023	
Benzo[k]fluoranthene	ND	1.0	ug/L							10/03/2023	
Chrysene	ND	1.0	ug/L							10/03/2023	
Dibenz[a,h]anthracene	ND	2.0	ug/L							10/03/2023	
Fluoranthene	ND	1.0	ug/L							10/03/2023	
Fluorene	ND	1.0	ug/L							10/03/2023	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L							10/03/2023	
Naphthalene	ND	1.0	ug/L							10/03/2023	
Phenanthrene	ND	1.0	ug/L							10/03/2023	
Pyrene	ND	1.0	ug/L							10/03/2023	
Surrogate: 2-Fluorobiphenyl	*15.4*		ug/L	*25.00*		*61.6*	*20-101*			10/03/2023	
Surrogate: Nitrobenzene-d5	*18.1*		ug/L	*25.00*		*72.6*	*13-100*			10/03/2023	
Surrogate: p-Terphenyl-d14	*29.1*		ug/L	*25.00*		*116*	*18-150*			10/03/2023	
LCS (B3J0220-BS1)											
2-Methylnaphthalene	26.1	5.0	ug/L	50.00		52.1	25.3-79.1			10/03/2023	
Acenaphthene	28.8	1.0	ug/L	50.00		57.6	35.2-90.9			10/03/2023	
Acenaphthylene	32.4	1.0	ug/L	50.00		64.8	38.7-99.1			10/03/2023	
Anthracene	38.5	1.0	ug/L	50.00		76.9	53.9-106.8			10/03/2023	
Benz[a]anthracene	47.6	1.0	ug/L	50.00		95.2	52.5-113.7			10/03/2023	
Benzo[a]pyrene	44.4	1.0	ug/L	50.00		88.7	43.7-118			10/03/2023	
Benzo[b]fluoranthene	45.1	1.0	ug/L	50.00		90.2	44.1-118.6			10/03/2023	
Benzo[g,h,i]perylene	46.1	1.0	ug/L	50.00		92.2	25.8-127			10/03/2023	
Benzo[k]fluoranthene	44.4	1.0	ug/L	50.00		88.8	41.9-117.7			10/03/2023	
Chrysene	45.0	1.0	ug/L	50.00		89.9	53.1-114.9			10/03/2023	
Dibenz[a,h]anthracene	41.2	2.0	ug/L	50.00		82.5	23.4-134.7			10/03/2023	
Fluoranthene	43.3	1.0	ug/L	50.00		86.6	55-112.1			10/03/2023	
Fluorene	33.8	1.0	ug/L	50.00		67.6	42-98			10/03/2023	
Indeno(1,2,3-c,d)pyrene	44.3	2.0	ug/L	50.00		88.5	29.1-133.2			10/03/2023	
Naphthalene	24.9	1.0	ug/L	50.00		49.8	22-76.8			10/03/2023	
Phenanthrene	37.4	1.0	ug/L	50.00		74.7	54.5-102.4			10/03/2023	
Pyrene	43.6	1.0	ug/L	50.00		87.3	54.2-110.5			10/03/2023	
Surrogate: 2-Fluorobiphenyl	*15.7*		ug/L	*25.00*		*62.8*	*20-101*			10/03/2023	
Surrogate: Nitrobenzene-d5	*17.2*		ug/L	*25.00*		*68.8*	*13-100*			10/03/2023	
Surrogate: p-Terphenyl-d14	*27.5*		ug/L	*25.00*		*110*	*18-150*			10/03/2023	
LCS Dup (B3J0220-BSD1)											
2-Methylnaphthalene	28.6	5.0	ug/L	50.00		57.1	25.3-79.1	9.18	21.8	10/03/2023	
Acenaphthene	31.2	1.0	ug/L	50.00		62.3	35.2-90.9	7.85	19.1	10/03/2023	
Acenaphthylene	34.3	1.0	ug/L	50.00		68.7	38.7-99.1	5.89	18	10/03/2023	
Anthracene	39.4	1.0	ug/L	50.00		78.9	53.9-106.8	2.49	15	10/03/2023	
Benz[a]anthracene	48.8	1.0	ug/L	50.00		97.6	52.5-113.7	2.49	16	10/03/2023	
Benzo[a]pyrene	45.1	1.0	ug/L	50.00		90.3	43.7-118	1.76	22.8	10/03/2023	
Benzo[b]fluoranthene	46.5	1.0	ug/L	50.00		92.9	44.1-118.6	2.95	23.4	10/03/2023	
Benzo[g,h,i]perylene	46.7	1.0	ug/L	50.00		93.3	25.8-127	1.17	32.2	10/03/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0220 - Method: 3510 Water SVOC				**Prepared: 10/02/2023**							
LCS Dup (B3J0220-BSD1)											
Benzo[k]fluoranthene	44.9	1.0	ug/L	50.00		89.7	41.9-117.7	1.00	22.8	10/03/2023	
Chrysene	45.7	1.0	ug/L	50.00		91.3	53.1-114.9	1.56	16.3	10/03/2023	
Dibenz[a,h]anthracene	42.1	2.0	ug/L	50.00		84.1	23.4-134.7	2.00	29.8	10/03/2023	
Fluoranthene	44.3	1.0	ug/L	50.00		88.6	55-112.1	2.34	16.3	10/03/2023	
Fluorene	36.2	1.0	ug/L	50.00		72.4	42-98	6.80	16.4	10/03/2023	
Indeno(1,2,3-c,d)pyrene	45.1	2.0	ug/L	50.00		90.1	29.1-133.2	1.82	29.3	10/03/2023	
Naphthalene	26.4	1.0	ug/L	50.00		52.8	22-76.8	5.96	24.2	10/03/2023	
Phenanthrene	38.8	1.0	ug/L	50.00		77.5	54.5-102.4	3.63	15	10/03/2023	
Pyrene	44.3	1.0	ug/L	50.00		88.6	54.2-110.5	1.51	18.6	10/03/2023	
Surrogate: 2-Fluorobiphenyl	*16.6*		ug/L	*25.00*		*66.4*	*20-101*			10/03/2023	
Surrogate: Nitrobenzene-d5	*18.1*		ug/L	*25.00*		*72.2*	*13-100*			10/03/2023	
Surrogate: p-Terphenyl-d14	*27.6*		ug/L	*25.00*		*111*	*18-150*			10/03/2023	
Matrix Spike (B3J0220-MS1)	**Source: 2309378-03**										
2-Methylnaphthalene	33.9	5.0	ug/L	50.00	ND	67.9	13.4-95.1			10/03/2023	
Acenaphthene	35.1	1.0	ug/L	50.00	ND	70.2	35.2-95.8			10/03/2023	
Acenaphthylene	38.5	1.0	ug/L	50.00	ND	77.0	38.3-103.1			10/03/2023	
Anthracene	40.2	1.0	ug/L	50.00	ND	80.4	54.2-105.4			10/03/2023	
Benz[a]anthracene	48.1	1.0	ug/L	50.00	ND	96.2	39.8-119.3			10/03/2023	
Benzo[a]pyrene	43.8	1.0	ug/L	50.00	ND	87.6	30-125.5			10/03/2023	
Benzo[b]fluoranthene	44.7	1.0	ug/L	50.00	ND	89.4	29.9-124.8			10/03/2023	
Benzo[g,h,i]perylene	45.6	1.0	ug/L	50.00	ND	91.2	10-133.9			10/03/2023	
Benzo[k]fluoranthene	43.5	1.0	ug/L	50.00	ND	87.0	28.6-120.8			10/03/2023	
Chrysene	46.1	1.0	ug/L	50.00	ND	92.1	39.3-119.7			10/03/2023	
Dibenz[a,h]anthracene	40.6	2.0	ug/L	50.00	ND	81.1	10-140.4			10/03/2023	
Fluoranthene	44.7	1.0	ug/L	50.00	ND	89.3	53.7-110.6			10/03/2023	
Fluorene	38.7	1.0	ug/L	50.00	ND	77.4	43.6-100.7			10/03/2023	
Indeno(1,2,3-c,d)pyrene	43.6	2.0	ug/L	50.00	ND	87.1	12.4-140.5			10/03/2023	
Naphthalene	32.2	1.0	ug/L	50.00	ND	64.3	10-104.5			10/03/2023	
Phenanthrene	40.0	1.0	ug/L	50.00	ND	80.0	55.4-103.2			10/03/2023	
Pyrene	44.5	1.0	ug/L	50.00	ND	89.0	49.1-113.8			10/03/2023	
Surrogate: 2-Fluorobiphenyl	*19.9*		ug/L	*25.00*		*79.7*	*20-101*			10/03/2023	
Surrogate: Nitrobenzene-d5	*19.9*		ug/L	*25.00*		*79.6*	*13-100*			10/03/2023	
Surrogate: p-Terphenyl-d14	*28.3*		ug/L	*25.00*		*113*	*18-150*			10/03/2023	
Matrix Spike Dup (B3J0220-MSD1)	**Source: 2309378-03**										
2-Methylnaphthalene	32.3	5.0	ug/L	50.00	ND	64.7	13.4-95.1	4.78	54.2	10/03/2023	
Acenaphthene	33.8	1.0	ug/L	50.00	ND	67.6	35.2-95.8	3.74	34.5	10/03/2023	
Acenaphthylene	37.6	1.0	ug/L	50.00	ND	75.1	38.3-103.1	2.47	35	10/03/2023	
Anthracene	39.8	1.0	ug/L	50.00	ND	79.7	54.2-105.4	0.873	15	10/03/2023	
Benz[a]anthracene	47.9	1.0	ug/L	50.00	ND	95.9	39.8-119.3	0.296	21.1	10/03/2023	
Benzo[a]pyrene	43.9	1.0	ug/L	50.00	ND	87.8	30-125.5	0.211	27.1	10/03/2023	
Benzo[b]fluoranthene	45.5	1.0	ug/L	50.00	ND	91.1	29.9-124.8	1.92	27.2	10/03/2023	
Benzo[g,h,i]perylene	46.0	1.0	ug/L	50.00	ND	92.1	10-133.9	0.974	35.9	10/03/2023	
Benzo[k]fluoranthene	43.6	1.0	ug/L	50.00	ND	87.2	28.6-120.8	0.250	26.7	10/03/2023	
Chrysene	45.3	1.0	ug/L	50.00	ND	90.7	39.3-119.7	1.54	22.2	10/03/2023	
Dibenz[a,h]anthracene	40.6	2.0	ug/L	50.00	ND	81.1	10-140.4	0.0222	39.2	10/03/2023	
Fluoranthene	44.2	1.0	ug/L	50.00	ND	88.4	53.7-110.6	1.02	18.2	10/03/2023	
Fluorene	38.3	1.0	ug/L	50.00	ND	76.7	43.6-100.7	0.946	24.7	10/03/2023	
Indeno(1,2,3-c,d)pyrene	43.8	2.0	ug/L	50.00	ND	87.5	12.4-140.5	0.457	33.5	10/03/2023	
Naphthalene	30.2	1.0	ug/L	50.00	ND	60.4	10-104.5	6.26	71.1	10/03/2023	
Phenanthrene	39.3	1.0	ug/L	50.00	ND	78.5	55.4-103.2	1.88	15	10/03/2023	

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Organics-Semivolatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0220 - Method: 3510 Water SVOC				**Prepared: 10/02/2023**							
Matrix Spike Dup (B3J0220-MSD1)	**Source: 2309378-03**										
Pyrene	44.1	1.0	ug/L	50.00	ND	88.3	49.1-113.8	0.864	18.9	10/03/2023	
Surrogate: 2-Fluorobiphenyl	*19.3*		ug/L	*25.00*		*77.1*	*20-101*			10/03/2023	
Surrogate: Nitrobenzene-d5	*19.1*		ug/L	*25.00*		*76.2*	*13-100*			10/03/2023	
Surrogate: p-Terphenyl-d14	*28.0*		ug/L	*25.00*		*112*	*18-150*			10/03/2023	

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Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0419 - Method: 200.7/200.8				**Prepared: 10/04/2023**							
Blank (B3J0419-BLK1)											
Arsenic	ND	1.0	ug/L							10/18/2023	
Barium	ND	5.0	ug/L							10/19/2023	
Cadmium	ND	0.2	ug/L							10/19/2023	
Chromium	ND	1.0	ug/L							10/18/2023	
Copper	ND	1.0	ug/L							10/18/2023	
Lead	ND	1.0	ug/L							10/18/2023	
Selenium	ND	1.0	ug/L							10/18/2023	
Silver	ND	0.2	ug/L							10/19/2023	
Zinc	ND	5.0	ug/L							10/18/2023	
LCS (B3J0419-BS1)											
Arsenic	51.3	1.0	ug/L	50.00		103	85-115			10/18/2023	
Barium	52.3	5.0	ug/L	50.00		105	85-115			10/19/2023	
Cadmium	50.9	0.2	ug/L	50.00		102	85-115			10/19/2023	
Chromium	49.0	1.0	ug/L	50.00		98.0	85-115			10/18/2023	
Copper	44.1	1.0	ug/L	50.00		88.1	85-115			10/18/2023	
Lead	45.5	1.0	ug/L	50.00		90.9	85-115			10/18/2023	
Selenium	50.0	1.0	ug/L	50.00		99.9	85-115			10/18/2023	
Silver	48.8	0.2	ug/L	50.00		97.6	85-115			10/19/2023	
Zinc	46.4	5.0	ug/L	50.00		92.7	85-115			10/18/2023	
Matrix Spike (B3J0419-MS1)	**Source: 2309378-03**										
Arsenic	52.1	1.0	ug/L	50.00	0.6	103	70-130			10/18/2023	
Barium	153	5.0	ug/L	50.00	87.4	130	70-130			10/19/2023	A04
Cadmium	45.8	0.2	ug/L	50.00	ND	91.7	70-130			10/19/2023	
Chromium	51.7	1.0	ug/L	50.00	0.6	102	70-130			10/18/2023	
Copper	41.4	1.0	ug/L	50.00	0.4	81.9	70-130			10/18/2023	
Lead	42.5	1.0	ug/L	50.00	ND	85.0	70-130			10/18/2023	
Selenium	49.5	1.0	ug/L	50.00	4.2	90.6	70-130			10/18/2023	
Silver	43.4	0.2	ug/L	50.00	ND	86.8	70-130			10/19/2023	
Zinc	40.2	5.0	ug/L	50.00	0.8	78.8	70-130			10/18/2023	
Matrix Spike Dup (B3J0419-MSD1)	**Source: 2309378-03**										
Arsenic	52.5	1.0	ug/L	50.00	0.6	104	70-130	0.775	20	10/18/2023	
Barium	150	5.0	ug/L	50.00	87.4	125	70-130	1.74	20	10/19/2023	
Cadmium	46.5	0.2	ug/L	50.00	ND	93.1	70-130	1.49	20	10/19/2023	
Chromium	49.9	1.0	ug/L	50.00	0.6	98.5	70-130	3.54	20	10/18/2023	
Copper	41.3	1.0	ug/L	50.00	0.4	81.7	70-130	0.221	20	10/18/2023	
Lead	41.5	1.0	ug/L	50.00	ND	83.0	70-130	2.41	20	10/18/2023	
Selenium	49.5	1.0	ug/L	50.00	4.2	90.7	70-130	0.0881	20	10/18/2023	
Silver	42.5	0.2	ug/L	50.00	ND	85.1	70-130	2.00	20	10/19/2023	
Zinc	40.6	5.0	ug/L	50.00	0.8	79.6	70-130	1.00	20	10/18/2023	
Batch B3J1732 - Method: 245.1				**Prepared: 10/17/2023**							
Blank (B3J1732-BLK1)											
Mercury	ND	0.2	ug/L							10/17/2023	
LCS (B3J1732-BS1)											
Mercury	4.0	0.2	ug/L	4.000		100	85-115			10/17/2023	
Matrix Spike (B3J1732-MS1)	**Source: 2309322-03**										
Mercury	4.1	0.2	ug/L	4.000	0.2	99.7	70-130			10/17/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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

Inorganics-Metals - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J1732 - Method: 245.1				**Prepared: 10/17/2023**							
Matrix Spike (B3J1732-MS2)	**Source: 2309378-03**										
Mercury	4.0	0.2	ug/L	4.000	ND	100	70-130			10/17/2023	
Matrix Spike Dup (B3J1732-MSD1)	**Source: 2309322-03**										
Mercury	4.1	0.2	ug/L	4.000	0.2	98.7	70-130	0.982	20	10/17/2023	
Matrix Spike Dup (B3J1732-MSD2)	**Source: 2309378-03**										
Mercury	3.9	0.2	ug/L	4.000	ND	98.7	70-130	1.58	20	10/17/2023	
Reference (B3J1732-SRM1)											
Mercury	3.9	0.2	ug/L	4.000		98.6	0-200			10/17/2023	

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
230935Y	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	WATER

Location ID: LBC4.244 9	Program: 201	CC Email 1: carrj@aktpeerless.com	Project TAT Days:	Sample Collector: Kammie Niswander
Dept-Division-District: RRD - Lansing Central	Activity:	CC Email 2: niswanderk@aktpeerless.com	Project Due Date:	Sample Collector Phone: 989-844-6442
State Project Manager: Janet Michaluk	Funding Source:	CC Email 3:	Accept Analysis hold time codes: R01 3.3	Contract Firm: AKT Peerless
State Project Manager Email: Michaluk@michigan.gov	Location Code: C033	Overflow Lab Choice 1:		Contract Firm Primary Contact: Jeff Carr
State Project Manager Phone: 517-643-0314	SUD Location Code:	Overflow Lab Choice 2:		Primary Contact Phone: 989-754-9896

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1		AKT-1/TMW	9/26/2023	2:20pm	6	
2		AKT-4/TMW	9/25/2023	11:35am	6	
3		AKT-5/TMW	9/25/2023	12:22pm	6	
4		AKT-6/TMW	9/26/2023	1:20pm	5	
5		AKT-7/TMW	9/25/2023	3:10pm	6	
6		AKT-8/TMW	9/25/2023	2:07pm	6	
7		AKT-Dup W	9/25/2023		6	
8		MS	9/25/2023	12:22pm	6	AKT-5/TMW
9		MSD	9/25/2023	12:22pm	6	AKT-5/TMW
10		Eq Blank	9/25/2023	11:00am	6	

ORGANIC CHEMISTRY

	1	2	3	4	5	6	7	8	9	10
VOA - Volatile Organic Acidic										
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
METH - Methane, Ethane, Ethene										
Methane, Ethane, Ethene	1	2	3	4	5	6	7	8	9	10
ON - Pesticides, PCBs										
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
Chlordane	1	2	3	4	5	6	7	8	9	10
BNA - Base Neutral Acids										
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
Acids only	1	2	3	4	5	6	7	8	9	10
Organic Specialty Request										
PFAS	1	2	3	4	5	6	7	8	9	10
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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1	2	3	4	5	6	7	8	9	10
OpMemo2 - Dissolved	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,V,Zn)										
Michigan10 - Total	1	2	3	4	5	6	7	8	9	10
Michigan10 - Dissolved	1	2	3	4	5	6	7	8	9	10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)										

MAD - DISSOLVED METALS

Diss - Silver - Ag	1	2	3	4	5	6	7	8	9	10
Diss - Aluminum - Al	1	2	3	4	5	6	7	8	9	10
Diss - Arsenic - As	1	2	3	4	5	6	7	8	9	10
Diss - Boron - B	1	2	3	4	5	6	7	8	9	10
Diss - Barium - Ba	1	2	3	4	5	6	7	8	9	10
Diss - Beryllium - Be	1	2	3	4	5	6	7	8	9	10
Diss - Cadmium - Cd	1	2	3	4	5	6	7	8	9	10
Diss - Cobalt - Co	1	2	3	4	5	6	7	8	9	10
Diss - Chromium - Cr	1	2	3	4	5	6	7	8	9	10
Diss - Copper - Cu	1	2	3	4	5	6	7	8	9	10
Diss - Iron - Fe	1	2	3	4	5	6	7	8	9	10
Diss - Mercury - Hg	1	2	3	4	5	6	7	8	9	10
Diss - Lithium - Li	1	2	3	4	5	6	7	8	9	10
Diss - Manganese - Mn	1	2	3	4	5	6	7	8	9	10
Diss - Molybdenum - Mo	1	2	3	4	5	6	7	8	9	10
Diss - Nickel - Ni	1	2	3	4	5	6	7	8	9	10
Diss - Lead - Pb	1	2	3	4	5	6	7	8	9	10
Diss - Antimony - Sb	1	2	3	4	5	6	7	8	9	10
Diss - Selenium - Se	1	2	3	4	5	6	7	8	9	10
Diss - Strontium - Sr	1	2	3	4	5	6	7	8	9	10
Diss - Titanium - Ti	1	2	3	4	5	6	7	8	9	10
Diss - Thallium - Tl	1	2	3	4	5	6	7	8	9	10
Diss - Uranium - U	1	2	3	4	5	6	7	8	9	10
Diss - Vanadium - V	1	2	3	4	5	6	7	8	9	10
Diss - Zinc - Zn	1	2	3	4	5	6	7	8	9	10
Diss - Calcium - Ca	1	2	3	4	5	6	7	8	9	10
Diss - Potassium - K	1	2	3	4	5	6	7	8	9	10
Diss - Magnesium - Mg	1	2	3	4	5	6	7	8	9	10
Diss - Sodium - Na	1	2	3	4	5	6	7	8	9	10
Diss - Hardness - Ca, Mg	1	2	3	4	5	6	7	8	9	10
MD - Metals Dissolved										
Lab Filtration	1	2	3	4	5	6	7	8	9	10

MA - TOTAL METALS

Silver - Ag	1	2	3	4	5	6	7	8	9	10
Aluminum - Al	1	2	3	4	5	6	7	8	9	10
Arsenic - As	1	2	3	4	5	6	7	8	9	10
Boron - B	1	2	3	4	5	6	7	8	9	10
Barium - Ba	1	2	3	4	5	6	7	8	9	10
Beryllium - Be	1	2	3	4	5	6	7	8	9	10
Cadmium - Cd	1	2	3	4	5	6	7	8	9	10
Cobalt - Co	1	2	3	4	5	6	7	8	9	10
Chromium - Cr	1	2	3	4	5	6	7	8	9	10
Copper - Cu	1	2	3	4	5	6	7	8	9	10
Iron - Fe	1	2	3	4	5	6	7	8	9	10
Mercury - Hg	1	2	3	4	5	6	7	8	9	10
Lithium - Li	1	2	3	4	5	6	7	8	9	10
Manganese - Mn	1	2	3	4	5	6	7	8	9	10
Molybdenum - Mo	1	2	3	4	5	6	7	8	9	10
Nickel - Ni	1	2	3	4	5	6	7	8	9	10
Lead - Pb	1	2	3	4	5	6	7	8	9	10
Antimony - Sb	1	2	3	4	5	6	7	8	9	10
Selenium - Se	1	2	3	4	5	6	7	8	9	10
Strontium - Sr	1	2	3	4	5	6	7	8	9	10
Titanium - Ti	1	2	3	4	5	6	7	8	9	10
Thallium - Tl	1	2	3	4	5	6	7	8	9	10
Uranium - U	1	2	3	4	5	6	7	8	9	10
Vanadium - V	1	2	3	4	5	6	7	8	9	10
Zinc - Zn	1	2	3	4	5	6	7	8	9	10
Calcium - Ca	1	2	3	4	5	6	7	8	9	10
Potassium - K	1	2	3	4	5	6	7	8	9	10
Magnesium - Mg	1	2	3	4	5	6	7	8	9	10
Sodium - Na	1	2	3	4	5	6	7	8	9	10
Hardness - Ca, Mg	1	2	3	4	5	6	7	8	9	10
LHG - Low Level Mercury										
Mercury Low Level - Hg	1	2	3	4	5	6	7	8	9	10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1	2	3	4	5	6	7	8	9	10
GCN	Available Cyanide - CN	1	2	3	4	5	6	7	8	9	10
	(Amenable / Weak Acid Dissociable)										
CA	Chlorophyll	1	2	3	4	5	6	7	8	9	10
GN	Ortho Phosphate - OP	1	2	3	4	5	6	7	8	9	10
GN	Diss Ortho Phosphate -*FF	1	2	3	4	5	6	7	8	9	10
GN	Nitrite - NO_2	1	2	3	4	5	6	7	8	9	10
GN	Nitrate - NO_3 (Calc.)	1	2	3	4	5	6	7	8	9	10
GN	Suspended Solids - SS	1	2	3	4	5	6	7	8	9	10
GN	Dissolved Solids - TDS	1	2	3	4	5	6	7	8	9	10
MN	Diss Solids - TDS (Calc.)	1	2	3	4	5	6	7	8	9	10
GN	Turbidity	1	2	3	4	5	6	7	8	9	10
MN	Total Alkalinity	1	2	3	4	5	6	7	8	9	10
MN	Bicarb/Carb Alkalinity	1	2	3	4	5	6	7	8	9	10
	(includes Total Alkalinity)										
MN	Chloride - Cl	1	2	3	4	5	6	7	8	9	10
MN	Fluoride - F	1	2	3	4	5	6	7	8	9	10
MN	Sulfate - SO4	1	2	3	4	5	6	7	8	9	10
MN	Diss Chromium 6 -*FF	1	2	3	4	5	6	7	8	9	10
MN	Conductivity	1	2	3	4	5	6	7	8	9	10
MN	pH	1	2	3	4	5	6	7	8	9	10
GA	Chem Oxyg Dem - COD	1	2	3	4	5	6	7	8	9	10
GA	Diss Org Carbon - DOC-*FF	1	2	3	4	5	6	7	8	9	10
GN	Diss Org Carbon - DOC (LF)	1	2	3	4	5	6	7	8	9	10
	(Lab - Filtered & Preserved)										
GA	Total Org Carbon - TOC	1	2	3	4	5	6	7	8	9	10
GA	Ammonia - NH3	1	2	3	4	5	6	7	8	9	10
GA	Nitrate+Nitrite - NO3+NO2	1	2	3	4	5	6	7	8	9	10
GA	Kjeldahl Nitrogen - KN	1	2	3	4	5	6	7	8	9	10
GA	Total Phosphorus - TP	1	2	3	4	5	6	7	8	9	10

*(FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Kammie Niswander AKT	AKT Storage	9/26/23 5:00pm
Signature:			9/26/23 4:00pm
Print Name & Org.	AKT Storage	Ashley BergMooser AKT Peerless	9/29/23
Signature:			
Print Name & Org.	Ashley BergMooser AKT Peerless	Melissa Smith	9/29/23 1120
Signature:			

EGLE

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
23093578	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	WATER

Location ID	Program: 201	CC Email 1: carrj@aktpeerless.com	Project TAT Days	Sample Collector: Kammie Niswander
Dept-Division-District: RRD - Lansing Central	Activity	CC Email 2: niswanderk@aktpeerless.com	Project Due Date	Sample Collector Phone: 989-844-6442
State Project Manager: Janet Michaluk	Funding Source	CC Email 3		Contract Firm: AKT Peerless
State Project Manager Email: MichalukJ@michigan.gov	Location Code: C033	Overflow Lab Choice 1	Accept Analysis hold time codes	Contract Firm Primary Contact: Jeff Carr
State Project Manager Phone: 517-643-0314	SUD Location Code	Overflow Lab Choice 2		Primary Contact Phone: 989-754-9896

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1		Trip Blank	9/25/2023		1	
2						
3						
4						
5						
6						
7						
8						
9						
10						

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
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
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
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
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
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
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Request	
PFAS	1 2 3 4 5 6 7 8 9 10
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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	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,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved	
Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
Boron - B	1 2 3 4 5 6 7 8 9 10
Barium - Ba	1 2 3 4 5 6 7 8 9 10
Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Copper - Cu	1 2 3 4 5 6 7 8 9 10
Iron - Fe	1 2 3 4 5 6 7 8 9 10
Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Lithium - Li	1 2 3 4 5 6 7 8 9 10
Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Lead - Pb	1 2 3 4 5 6 7 8 9 10
Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Selenium - Se	1 2 3 4 5 6 7 8 9 10
Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Uranium - U	1 2 3 4 5 6 7 8 9 10
Vanadium - V	1 2 3 4 5 6 7 8 9 10
Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Potassium - K	1 2 3 4 5 6 7 8 9 10
Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Sodium - Na	1 2 3 4 5 6 7 8 9 10
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN	Available Cyanide - CN (Amenable / Weak Acid Dissociable)	1 2 3 4 5 6 7 8 9 10
CA	Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN	Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN	Diss Ortho Phosphate -*FF	1 2 3 4 5 6 7 8 9 10
GN	Nitrite - NO_2	1 2 3 4 5 6 7 8 9 10
GN	Nitrate - NO_3 (Calc.)	1 2 3 4 5 6 7 8 9 10
GN	Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN	Dissolved Solids - TDS	1 2 3 4 5 6 7 8 9 10
MN	Diss Solids - TDS (Calc.)	1 2 3 4 5 6 7 8 9 10
GN	Turbidity	1 2 3 4 5 6 7 8 9 10
MN	Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN	Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN	Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN	Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN	Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN	Diss Chromium 6 -*FF	1 2 3 4 5 6 7 8 9 10
MN	Conductivity	1 2 3 4 5 6 7 8 9 10
MN	pH	1 2 3 4 5 6 7 8 9 10
GA	Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
GA	Diss Org Carbon - DOC-*FF	1 2 3 4 5 6 7 8 9 10
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GA	Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
GA	Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA	Nitrate+Nitrite - NO3+NO2	1 2 3 4 5 6 7 8 9 10
GA	Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA	Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Kammie Niswander AKT	AKT Storage	9/25/23 5:00pm
Signature:	Kammie Niswander	Kammie Niswander	
Print Name & Org.	AKT Storage	Ashley Bergmooser	9/29/23
Signature:		Ashley Bergmooser	
Print Name & Org.	Ashley BergMooSer	Melissa Smith	9/29/23 1120
Signature:	Ashley Bergmooser	Melissa Smith	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

13 October 2023

Work Order: 2309376

Price: $1,000.00

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909

RE: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

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

Project: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY
Site Code: LB042449
Project Manager: Janet Michaluk

Reported:
10/13/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
AKT-4/TMW	2309376-01	Water	09/25/2023	09/29/2023	
AKT-8/TMW	2309376-02	Water	09/25/2023	09/29/2023	
EQUIPMENT BLANK	2309376-03	Water	09/25/2023	09/29/2023	
TRIP BLANK	2309376-04	Water	09/25/2023	09/29/2023	

Notes and Definitions

ND	
RL	Reporting Limit
NA	Not Applicable

Case Narrative

Samples were received **9/29/2023 11:07:00AM** for client **EGLE-RRD-LANSING** as a part of project **IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY**.

Samples were logged and designated as Work Order # **2309376** on **9/29/2023 3:10:00PM**.

This Report was created **10/13/2023 1:42:33PM**.

Additional Notes/Narrative (if applicable):

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: AKT-4/TMW

Lab ID: 2309376-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
763051-92-9	11Cl-PF3OUdS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
356-02-5	3:3FTCA	ND	4.0	ng/L	1	10/04/23	B3J0344	8327	BM	
757124-72-4	4:2FTS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
914637-49-3	5:3FTCA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
27619-97-2	**6:2FTS**	**4.3**	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
812-70-4	7:3FTCA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
39108-34-4	8:2FTS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
756426-58-1	9Cl-PF3ONS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
919005-14-4	ADONA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
13252-13-6	HFPO-DA	ND	4.0	ng/L	1	10/04/23	B3J0344	8327	BM	
2991-50-6	NEtFOSAA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
2355-31-9	NMeFOSAA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
375-22-4	**PFBA**	**4.9**	4.0	ng/L	1	10/04/23	B3J0344	8327	BM	
375-73-5	PFBS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
30334-69-1	PFBSA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
335-76-2	PFDA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
307-55-1	PFDoDA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
335-77-3	PFDS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
646-83-3	PFECHS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
375-85-9	PFHpA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
375-92-8	PFHpS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
307-24-4	PFHxA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
355-46-4	PFHxS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
41997-13-1	PFHxSA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
375-95-1	PFNA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
68259-12-1	PFNS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
335-67-1	PFOA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
1763-23-1	PFOS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
754-91-6	PFOSA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
2706-90-3	**PFPeA**	**3.3**	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
2706-91-4	PFPeS	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
376-06-7	PFTeDA	ND	4.0	ng/L	1	10/04/23	B3J0344	8327	BM	
72629-94-8	PFTrDA	ND	4.0	ng/L	1	10/04/23	B3J0344	8327	BM	
2058-94-8	PFUnDA	ND	2.0	ng/L	1	10/04/23	B3J0344	8327	BM	
Isotope Dilution Analog: 13C2-4:2FTS			*95.5 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-6:2FTS			*105 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-8:2FTS			*108 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA			*92.2 %*	*25-250*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA			*66.6 %*	*25-250*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFTeDA			*35.3 %*	*25-250*		*10/04/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-HFPODA			*114 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	

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

Client ID: AKT-4/TMW

Lab ID: 2309376-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
	Isotope Dilution Analog: 13C3-PFBS		*104 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C3-PFHxS		*104 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFBA		*106 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFHpA		*105 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFHxA		*104 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFPeA		*105 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C6-PFDA		*100 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C7-PFUnDA		*102 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOA		*102 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOS		*103 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOSA		*106 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C9-PFNA		*100 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d3-N-MeFOSAA		*104 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d5-N-EtFOSAA		*113 %*	*50-200*		*10/04/23*	B3J0344	*8327*	*BM*	

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FAX: (517) 335-9600

Client ID: AKT-8/TMW

Lab ID: 2309376-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
763051-92-9	11Cl-PF3OUdS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
356-02-5	3:3FTCA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
757124-72-4	4:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
914637-49-3	5:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
27619-97-2	6:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
812-70-4	7:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
39108-34-4	8:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
756426-58-1	9Cl-PF3ONS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
919005-14-4	ADONA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
13252-13-6	HFPO-DA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2991-50-6	NEtFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2355-31-9	NMeFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-22-4	**PFBA**	**5.4**	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-73-5	PFBS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
30334-69-1	PFBSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-76-2	PFDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-55-1	PFDoDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-77-3	PFDS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
646-83-3	PFECHS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-85-9	PFHpA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-92-8	PFHpS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-24-4	PFHxA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
355-46-4	PFHxS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
41997-13-1	PFHxSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-95-1	PFNA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
68259-12-1	PFNS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-67-1	PFOA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
1763-23-1	PFOS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
754-91-6	PFOSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-90-3	PFPeA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-91-4	PFPeS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
376-06-7	PFTeDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
72629-94-8	PFTrDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2058-94-8	PFUnDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
Isotope Dilution Analog: 13C2-4:2FTS			*102 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-6:2FTS			*108 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-8:2FTS			*123 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA			*112 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA			*82.3 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFTeDA			*46.6 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-HFPODA			*114 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-PFBS			*104 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

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FAX: (517) 335-9600

Client ID: AKT-8/TMW

Lab ID: 2309376-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
	Isotope Dilution Analog: 13C3-PFHxS		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFBA		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFHpA		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFHxA		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFPeA		*108 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C6-PFDA		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C7-PFUnDA		*109 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOA		*103 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOS		*105 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOSA		*109 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C9-PFNA		*104 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d3-N-MeFOSAA		*105 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d5-N-EtFOSAA		*119 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

EGLE
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: EQUIPMENT BLANK

Lab ID: 2309376-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
763051-92-9	11Cl-PF3OUdS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
356-02-5	3:3FTCA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
757124-72-4	4:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
914637-49-3	5:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
27619-97-2	6:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
812-70-4	7:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
39108-34-4	8:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
756426-58-1	9Cl-PF3ONS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
919005-14-4	ADONA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
13252-13-6	HFPO-DA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2991-50-6	NEtFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2355-31-9	NMeFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-22-4	PFBA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-73-5	PFBS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
30334-69-1	PFBSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-76-2	PFDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-55-1	PFDoDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-77-3	PFDS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
646-83-3	PFECHS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-85-9	PFHpA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-92-8	PFHpS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-24-4	PFHxA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
355-46-4	PFHxS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
41997-13-1	PFHxSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-95-1	PFNA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
68259-12-1	PFNS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-67-1	PFOA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
1763-23-1	PFOS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
754-91-6	PFOSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-90-3	PFPeA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-91-4	PFPeS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
376-06-7	PFTeDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
72629-94-8	PFTrDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2058-94-8	PFUnDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
Isotope Dilution Analog: 13C2-4:2FTS			*104 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-6:2FTS			*103 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-8:2FTS			*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA			*108 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA			*91.2 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFTeDA			*71.1 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-HFPODA			*112 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-PFBS			*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

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Client ID: EQUIPMENT BLANK

Lab ID: 2309376-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
	Isotope Dilution Analog: 13C3-PFHxS		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFBA		*109 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFHpA		*108 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFHxA		*109 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFPeA		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C6-PFDA		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C7-PFUnDA		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOA		*103 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOS		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOSA		*109 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C9-PFNA		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d3-N-MeFOSAA		*105 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d5-N-EtFOSAA		*111 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

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Client ID: TRIP BLANK

Lab ID: 2309376-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
763051-92-9	11Cl-PF3OUdS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
356-02-5	3:3FTCA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
757124-72-4	4:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
914637-49-3	5:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
27619-97-2	6:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
812-70-4	7:3FTCA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
39108-34-4	8:2FTS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
756426-58-1	9Cl-PF3ONS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
919005-14-4	ADONA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
13252-13-6	HFPO-DA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2991-50-6	NEtFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2355-31-9	NMeFOSAA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-22-4	PFBA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-73-5	PFBS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
30334-69-1	PFBSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-76-2	PFDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-55-1	PFDoDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-77-3	PFDS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
646-83-3	PFECHS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-85-9	PFHpA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-92-8	PFHpS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
307-24-4	PFHxA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
355-46-4	PFHxS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
41997-13-1	PFHxSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
375-95-1	PFNA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
68259-12-1	PFNS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
335-67-1	PFOA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
1763-23-1	PFOS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
754-91-6	PFOSA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-90-3	PFPeA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2706-91-4	PFPeS	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
376-06-7	PFTeDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
72629-94-8	PFTrDA	ND	4.0	ng/L	1	10/05/23	B3J0344	8327	BM	
2058-94-8	PFUnDA	ND	2.0	ng/L	1	10/05/23	B3J0344	8327	BM	
Isotope Dilution Analog: 13C2-4:2FTS			*113 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-6:2FTS			*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-8:2FTS			*102 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA			*99.9 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA			*84.9 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C2-PFTeDA			*66.6 %*	*25-250*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-HFPODA			*112 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
Isotope Dilution Analog: 13C3-PFBS			*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

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Client ID: TRIP BLANK

Lab ID: 2309376-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PFAS Isotope Dilution										
	Isotope Dilution Analog: 13C3-PFHxS		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFBA		*107 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C4-PFHpA		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFHxA		*104 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C5-PFPeA		*108 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C6-PFDA		*105 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C7-PFUnDA		*103 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOA		*101 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOS		*106 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C8-PFOSA		*105 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: 13C9-PFNA		*99.5 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d3-N-MeFOSAA		*103 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	
	Isotope Dilution Analog: d5-N-EtFOSAA		*108 %*	*50-200*		*10/05/23*	B3J0344	*8327*	*BM*	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
Blank (B3J0344-BLK1)											
11Cl-PF3OUdS	ND	2.0	ng/L							10/04/2023	
3:3FTCA	ND	4.0	ng/L							10/04/2023	
4:2FTS	ND	2.0	ng/L							10/04/2023	
5:3FTCA	ND	2.0	ng/L							10/04/2023	
6:2FTS	ND	2.0	ng/L							10/04/2023	
7:3FTCA	ND	2.0	ng/L							10/04/2023	
8:2FTS	ND	2.0	ng/L							10/04/2023	
9Cl-PF3ONS	ND	2.0	ng/L							10/04/2023	
ADONA	ND	2.0	ng/L							10/04/2023	
HFPO-DA	ND	4.0	ng/L							10/04/2023	
NEtFOSAA	ND	2.0	ng/L							10/04/2023	
NMeFOSAA	ND	2.0	ng/L							10/04/2023	
PFBA	ND	4.0	ng/L							10/04/2023	
PFBS	ND	2.0	ng/L							10/04/2023	
PFBSA	ND	2.0	ng/L							10/04/2023	
PFDA	ND	2.0	ng/L							10/04/2023	
PFDoDA	ND	2.0	ng/L							10/04/2023	
PFDS	ND	2.0	ng/L							10/04/2023	
PFECHS	ND	2.0	ng/L							10/04/2023	
PFHpA	ND	2.0	ng/L							10/04/2023	
PFHpS	ND	2.0	ng/L							10/04/2023	
PFHxA	ND	2.0	ng/L							10/04/2023	
PFHxS	ND	2.0	ng/L							10/04/2023	
PFHxSA	ND	2.0	ng/L							10/04/2023	
PFNA	ND	2.0	ng/L							10/04/2023	
PFNS	ND	2.0	ng/L							10/04/2023	
PFOA	ND	2.0	ng/L							10/04/2023	
PFOS	ND	2.0	ng/L							10/04/2023	
PFOSA	ND	2.0	ng/L							10/04/2023	
PFPeA	ND	2.0	ng/L							10/04/2023	
PFPeS	ND	2.0	ng/L							10/04/2023	
PFTeDA	ND	4.0	ng/L							10/04/2023	
PFTrDA	ND	4.0	ng/L							10/04/2023	
PFUnDA	ND	2.0	ng/L							10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*147*		ng/L	*149.9*		*98.2*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*156*		ng/L	*152.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*166*		ng/L	*153.5*		*108*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA	*174*		ng/L	*160.0*		*109*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*163*		ng/L	*160.0*		*102*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*148*		ng/L	*160.0*		*92.8*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*362*		ng/L	*320.0*		*113*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*155*		ng/L	*149.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*157*		ng/L	*151.6*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFBA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*167*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*169*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*164*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*170*		ng/L	*160.0*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*163*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
Blank (B3J0344-BLK1)											
Isotope Dilution Analog: 13C8-PFOS	*154*		ng/L	*153.3*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*166*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*162*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*169*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*174*		ng/L	*160.0*		*109*	*50-200*			10/04/2023	
LCS (B3J0344-BS1)											
11Cl-PF3OUdS	41.3	2.0	ng/L	37.72		110	70-130			10/04/2023	
3:3FTCA	43.7	4.0	ng/L	40.00		109	70-130			10/04/2023	
4:2FTS	43.3	2.0	ng/L	37.48		115	70-130			10/04/2023	
5:3FTCA	44.1	2.0	ng/L	40.00		110	70-130			10/04/2023	
6:2FTS	43.1	2.0	ng/L	38.04		113	70-130			10/04/2023	
7:3FTCA	45.0	2.0	ng/L	40.00		113	70-130			10/04/2023	
8:2FTS	42.9	2.0	ng/L	38.40		112	70-130			10/04/2023	
9Cl-PF3ONS	42.8	2.0	ng/L	37.32		115	70-130			10/04/2023	
ADONA	43.1	2.0	ng/L	37.80		114	70-130			10/04/2023	
HFPO-DA	41.7	4.0	ng/L	40.00		104	70-130			10/04/2023	
NEtFOSAA	44.3	2.0	ng/L	40.00		111	70-130			10/04/2023	
NMeFOSAA	45.4	2.0	ng/L	40.00		114	70-130			10/04/2023	
PFBA	46.3	4.0	ng/L	40.00		116	70-130			10/04/2023	
PFBS	41.4	2.0	ng/L	35.48		117	70-130			10/04/2023	
PFBSA	45.6	2.0	ng/L	40.00		114	70-130			10/04/2023	
PFDA	48.6	2.0	ng/L	40.00		121	70-130			10/04/2023	
PFDoDA	47.7	2.0	ng/L	40.00		119	70-130			10/04/2023	
PFDS	42.6	2.0	ng/L	38.60		110	70-130			10/04/2023	
PFECHS	41.4	2.0	ng/L	36.96		112	70-130			10/04/2023	
PFHpA	45.7	2.0	ng/L	40.00		114	70-130			10/04/2023	
PFHpS	44.9	2.0	ng/L	38.12		118	70-130			10/04/2023	
PFHxA	45.6	2.0	ng/L	40.00		114	70-130			10/04/2023	
PFHxS	43.8	2.0	ng/L	36.56		120	70-130			10/04/2023	
PFHxSA	45.6	2.0	ng/L	40.00		114	70-130			10/04/2023	
PFNA	44.6	2.0	ng/L	40.00		112	70-130			10/04/2023	
PFNS	44.6	2.0	ng/L	38.48		116	70-130			10/04/2023	
PFOA	47.3	2.0	ng/L	40.00		118	70-130			10/04/2023	
PFOS	41.7	2.0	ng/L	37.12		112	70-130			10/04/2023	
PFOSA	44.8	2.0	ng/L	40.00		112	70-130			10/04/2023	
PFPeA	46.8	2.0	ng/L	40.00		117	70-130			10/04/2023	
PFPeS	44.7	2.0	ng/L	37.64		119	70-130			10/04/2023	
PFTeDA	48.1	4.0	ng/L	40.00		120	70-130			10/04/2023	
PFTrDA	42.3	4.0	ng/L	40.00		106	70-130			10/04/2023	
PFUnDA	47.6	2.0	ng/L	40.00		119	70-130			10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*149*		ng/L	*149.9*		*99.2*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*156*		ng/L	*152.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*157*		ng/L	*153.5*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA	*168*		ng/L	*160.0*		*105*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*156*		ng/L	*160.0*		*97.6*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*141*		ng/L	*160.0*		*88.3*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*350*		ng/L	*320.0*		*109*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*152*		ng/L	*149.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*156*		ng/L	*151.6*		*103*	*50-200*			10/04/2023	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
LCS (B3J0344-BS1)											
Isotope Dilution Analog: 13C4-PFBA	*169*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*167*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*167*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*161*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*167*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*163*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOS	*162*		ng/L	*153.3*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*166*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*169*		ng/L	*160.0*		*106*	*50-200*			10/04/2023	
LCS Dup (B3J0344-BSD1)											
11Cl-PF3OUdS	42.4	2.0	ng/L	37.72		112	70-130	2.48	200	10/04/2023	
3:3FTCA	47.0	4.0	ng/L	40.00		118	70-130	7.36	200	10/04/2023	
4:2FTS	44.1	2.0	ng/L	37.48		118	70-130	1.83	200	10/04/2023	
5:3FTCA	45.4	2.0	ng/L	40.00		113	70-130	2.77	200	10/04/2023	
6:2FTS	43.9	2.0	ng/L	38.04		115	70-130	1.93	200	10/04/2023	
7:3FTCA	44.1	2.0	ng/L	40.00		110	70-130	2.16	200	10/04/2023	
8:2FTS	45.6	2.0	ng/L	38.40		119	70-130	6.11	200	10/04/2023	
9Cl-PF3ONS	43.8	2.0	ng/L	37.32		117	70-130	2.35	200	10/04/2023	
ADONA	44.0	2.0	ng/L	37.80		116	70-130	2.02	200	10/04/2023	
HFPO-DA	48.9	4.0	ng/L	40.00		122	70-130	15.9	200	10/04/2023	
NEtFOSAA	46.1	2.0	ng/L	40.00		115	70-130	4.03	200	10/04/2023	
NMeFOSAA	48.1	2.0	ng/L	40.00		120	70-130	5.73	200	10/04/2023	
PFBA	47.5	4.0	ng/L	40.00		119	70-130	2.65	200	10/04/2023	
PFBS	40.9	2.0	ng/L	35.48		115	70-130	1.17	200	10/04/2023	
PFBSA	43.2	2.0	ng/L	40.00		108	70-130	5.59	200	10/04/2023	
PFDA	46.4	2.0	ng/L	40.00		116	70-130	4.46	200	10/04/2023	
PFDoDA	47.5	2.0	ng/L	40.00		119	70-130	0.378	200	10/04/2023	
PFDS	43.9	2.0	ng/L	38.60		114	70-130	2.82	200	10/04/2023	
PFECHS	42.6	2.0	ng/L	36.96		115	70-130	2.86	200	10/04/2023	
PFHpA	45.3	2.0	ng/L	40.00		113	70-130	0.967	200	10/04/2023	
PFHpS	44.4	2.0	ng/L	38.12		116	70-130	1.03	200	10/04/2023	
PFHxA	46.2	2.0	ng/L	40.00		116	70-130	1.31	200	10/04/2023	
PFHxS	43.7	2.0	ng/L	36.56		119	70-130	0.274	200	10/04/2023	
PFHxSA	43.4	2.0	ng/L	40.00		108	70-130	5.08	200	10/04/2023	
PFNA	45.3	2.0	ng/L	40.00		113	70-130	1.42	200	10/04/2023	
PFNS	43.9	2.0	ng/L	38.48		114	70-130	1.58	200	10/04/2023	
PFOA	47.7	2.0	ng/L	40.00		119	70-130	0.758	200	10/04/2023	
PFOS	43.8	2.0	ng/L	37.12		118	70-130	5.00	200	10/04/2023	
PFOSA	45.7	2.0	ng/L	40.00		114	70-130	1.86	200	10/04/2023	
PFPeA	46.5	2.0	ng/L	40.00		116	70-130	0.729	200	10/04/2023	
PFPeS	43.3	2.0	ng/L	37.64		115	70-130	3.32	200	10/04/2023	
PFTeDA	48.5	4.0	ng/L	40.00		121	70-130	0.994	200	10/04/2023	
PFTrDA	40.1	4.0	ng/L	40.00		100	70-130	5.44	200	10/04/2023	
PFUnDA	45.8	2.0	ng/L	40.00		114	70-130	3.77	200	10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*149*		ng/L	*149.9*		*99.1*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*157*		ng/L	*152.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*186*		ng/L	*153.5*		*121*	*50-200*			10/04/2023	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
LCS Dup (B3J0344-BSD1)											
Isotope Dilution Analog: 13C2-PFDoDA	*198*		ng/L	*160.0*		*124*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*183*		ng/L	*160.0*		*115*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*165*		ng/L	*160.0*		*103*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*334*		ng/L	*320.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*153*		ng/L	*149.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*162*		ng/L	*151.6*		*107*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFBA	*171*		ng/L	*160.0*		*107*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*175*		ng/L	*160.0*		*110*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*188*		ng/L	*160.0*		*117*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOS	*161*		ng/L	*153.3*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*176*		ng/L	*160.0*		*110*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*166*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*167*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*204*		ng/L	*160.0*		*128*	*50-200*			10/04/2023	
MRL Check (B3J0344-MRL1)											
11Cl-PF3OUdS	4.06	2.0	ng/L	3.772		108	50-150			10/04/2023	
3:3FTCA	4.80	4.0	ng/L	4.000		120	50-150			10/04/2023	
4:2FTS	3.74	2.0	ng/L	3.748		99.8	50-150			10/04/2023	
5:3FTCA	4.50	2.0	ng/L	4.000		112	50-150			10/04/2023	
6:2FTS	4.08	2.0	ng/L	3.804		107	50-150			10/04/2023	
7:3FTCA	4.68	2.0	ng/L	4.000		117	50-150			10/04/2023	
8:2FTS	5.04	2.0	ng/L	3.840		131	50-150			10/04/2023	
9Cl-PF3ONS	4.00	2.0	ng/L	3.732		107	50-150			10/04/2023	
ADONA	4.02	2.0	ng/L	3.780		106	50-150			10/04/2023	
HFPO-DA	4.30	4.0	ng/L	4.000		108	50-150			10/04/2023	
NEtFOSAA	4.02	2.0	ng/L	4.000		100	50-150			10/04/2023	
NMeFOSAA	4.20	2.0	ng/L	4.000		105	50-150			10/04/2023	
PFBA	4.10	4.0	ng/L	4.000		102	50-150			10/04/2023	
PFBS	3.86	2.0	ng/L	3.548		109	50-150			10/04/2023	
PFBSA	4.24	2.0	ng/L	4.000		106	50-150			10/04/2023	
PFDA	3.84	2.0	ng/L	4.000		96.0	50-150			10/04/2023	
PFDoDA	4.40	2.0	ng/L	4.000		110	50-150			10/04/2023	
PFDS	4.00	2.0	ng/L	3.860		104	50-150			10/04/2023	
PFECHS	4.24	2.0	ng/L	3.696		115	50-150			10/04/2023	
PFHpA	4.08	2.0	ng/L	4.000		102	50-150			10/04/2023	
PFHpS	4.20	2.0	ng/L	3.812		110	50-150			10/04/2023	
PFHxA	4.02	2.0	ng/L	4.000		100	50-150			10/04/2023	
PFHxS	3.96	2.0	ng/L	3.656		108	50-150			10/04/2023	
PFHxSA	4.18	2.0	ng/L	4.000		104	50-150			10/04/2023	
PFNA	4.10	2.0	ng/L	4.000		102	50-150			10/04/2023	
PFNS	3.86	2.0	ng/L	3.848		100	50-150			10/04/2023	
PFOA	4.30	2.0	ng/L	4.000		108	50-150			10/04/2023	
PFOS	4.08	2.0	ng/L	3.712		110	50-150			10/04/2023	
PFOSA	4.30	2.0	ng/L	4.000		108	50-150			10/04/2023	
PFPeA	4.18	2.0	ng/L	4.000		104	50-150			10/04/2023	
PFPeS	4.04	2.0	ng/L	3.764		107	50-150			10/04/2023	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
MRL Check (B3J0344-MRL1)											
PFTeDA	4.44	4.0	ng/L	4.000		111	50-150			10/04/2023	
PFTrDA	3.72	4.0	ng/L	4.000		93.0	50-150			10/04/2023	
PFUnDA	4.18	2.0	ng/L	4.000		104	50-150			10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*149*		ng/L	*149.9*		*99.2*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*146*		ng/L	*152.0*		*95.7*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*154*		ng/L	*153.5*		*100*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA	*170*		ng/L	*160.0*		*106*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*159*		ng/L	*160.0*		*99.4*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*145*		ng/L	*160.0*		*90.8*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*331*		ng/L	*320.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*154*		ng/L	*149.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*158*		ng/L	*151.6*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFBA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*167*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*169*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*166*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*170*		ng/L	*160.0*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOS	*159*		ng/L	*153.3*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*166*		ng/L	*160.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*162*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*171*		ng/L	*160.0*		*107*	*50-200*			10/04/2023	
Matrix Spike (B3J0344-MS1)	**Source: 2309324-01**										
11Cl-PF3OUdS	40.1	2.0	ng/L	37.72	ND	106	70-130			10/04/2023	
3:3FTCA	45.8	4.0	ng/L	40.00	ND	115	70-130			10/04/2023	
4:2FTS	43.2	2.0	ng/L	37.48	ND	115	70-130			10/04/2023	
5:3FTCA	46.8	2.0	ng/L	40.00	ND	117	70-130			10/04/2023	
6:2FTS	45.1	2.0	ng/L	38.04	ND	119	70-130			10/04/2023	
7:3FTCA	48.6	2.0	ng/L	40.00	ND	122	70-130			10/04/2023	
8:2FTS	44.7	2.0	ng/L	38.40	ND	116	70-130			10/04/2023	
9Cl-PF3ONS	44.1	2.0	ng/L	37.32	ND	118	70-130			10/04/2023	
ADONA	43.7	2.0	ng/L	37.80	ND	116	70-130			10/04/2023	
HFPO-DA	47.7	4.0	ng/L	40.00	ND	119	70-130			10/04/2023	
NEtFOSAA	44.4	2.0	ng/L	40.00	ND	111	70-130			10/04/2023	
NMeFOSAA	49.6	2.0	ng/L	40.00	ND	124	70-130			10/04/2023	
PFBA	51.6	4.0	ng/L	40.00	4.38	118	70-130			10/04/2023	
PFBS	43.6	2.0	ng/L	35.48	3.40	113	70-130			10/04/2023	
PFBSA	45.8	2.0	ng/L	40.00	0.580	113	70-130			10/04/2023	
PFDA	46.6	2.0	ng/L	40.00	ND	116	70-130			10/04/2023	
PFDoDA	48.0	2.0	ng/L	40.00	ND	120	70-130			10/04/2023	
PFDS	43.5	2.0	ng/L	38.60	ND	113	70-130			10/04/2023	
PFECHS	45.1	2.0	ng/L	36.96	ND	122	70-130			10/04/2023	
PFHpA	48.8	2.0	ng/L	40.00	2.74	115	70-130			10/04/2023	
PFHpS	45.7	2.0	ng/L	38.12	ND	120	70-130			10/04/2023	
PFHxA	51.6	2.0	ng/L	40.00	3.74	120	70-130			10/04/2023	
PFHxS	43.1	2.0	ng/L	36.56	1.28	114	70-130			10/04/2023	
PFHxSA	45.5	2.0	ng/L	40.00	ND	114	70-130			10/04/2023	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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

Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
Matrix Spike (B3J0344-MS1)	**Source: 2309324-01**										
PFNA	49.1	2.0	ng/L	40.00	1.78	118	70-130			10/04/2023	
PFNS	44.6	2.0	ng/L	38.48	ND	116	70-130			10/04/2023	
PFOA	63.1	2.0	ng/L	40.00	14.0	123	70-130			10/04/2023	
PFOS	43.8	2.0	ng/L	37.12	1.54	114	70-130			10/04/2023	
PFOSA	45.9	2.0	ng/L	40.00	ND	115	70-130			10/04/2023	
PFPeA	52.3	2.0	ng/L	40.00	3.42	122	70-130			10/04/2023	
PFPeS	42.9	2.0	ng/L	37.64	ND	114	70-130			10/04/2023	
PFTeDA	51.5	4.0	ng/L	40.00	ND	129	70-130			10/04/2023	
PFTrDA	42.9	4.0	ng/L	40.00	ND	107	70-130			10/04/2023	
PFUnDA	47.5	2.0	ng/L	40.00	ND	119	70-130			10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*150*		ng/L	*149.9*		*100*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*153*		ng/L	*152.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*158*		ng/L	*153.5*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA	*163*		ng/L	*160.0*		*102*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*129*		ng/L	*160.0*		*80.8*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*88.4*		ng/L	*160.0*		*55.2*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*342*		ng/L	*320.0*		*107*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*158*		ng/L	*149.0*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*163*		ng/L	*151.6*		*108*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFBA	*151*		ng/L	*160.0*		*94.6*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*169*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*168*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*170*		ng/L	*160.0*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*170*		ng/L	*160.0*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*164*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOS	*162*		ng/L	*153.3*		*106*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*170*		ng/L	*160.0*		*107*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*162*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*163*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*173*		ng/L	*160.0*		*108*	*50-200*			10/04/2023	
Matrix Spike Dup (B3J0344-MSD1)	**Source: 2309324-01**										
11Cl-PF3OUdS	40.6	2.0	ng/L	37.72	ND	108	70-130	1.34	30	10/04/2023	
3:3FTCA	48.5	4.0	ng/L	40.00	ND	121	70-130	5.60	30	10/04/2023	
4:2FTS	45.7	2.0	ng/L	37.48	ND	122	70-130	5.62	30	10/04/2023	
5:3FTCA	48.5	2.0	ng/L	40.00	ND	121	70-130	3.49	30	10/04/2023	
6:2FTS	43.9	2.0	ng/L	38.04	ND	115	70-130	2.83	30	10/04/2023	
7:3FTCA	48.4	2.0	ng/L	40.00	ND	121	70-130	0.536	30	10/04/2023	
8:2FTS	44.4	2.0	ng/L	38.40	ND	116	70-130	0.674	30	10/04/2023	
9Cl-PF3ONS	45.3	2.0	ng/L	37.32	ND	121	70-130	2.59	30	10/04/2023	
ADONA	45.4	2.0	ng/L	37.80	ND	120	70-130	3.86	30	10/04/2023	
HFPO-DA	48.1	4.0	ng/L	40.00	ND	120	70-130	1.00	30	10/04/2023	
NEtFOSAA	47.6	2.0	ng/L	40.00	ND	119	70-130	6.87	30	10/04/2023	
NMeFOSAA	49.3	2.0	ng/L	40.00	ND	123	70-130	0.445	30	10/04/2023	
PFBA	51.8	4.0	ng/L	40.00	4.38	119	70-130	0.425	30	10/04/2023	
PFBS	45.1	2.0	ng/L	35.48	3.40	118	70-130	3.38	30	10/04/2023	
PFBSA	46.5	2.0	ng/L	40.00	0.580	115	70-130	1.52	30	10/04/2023	
PFDA	47.8	2.0	ng/L	40.00	ND	119	70-130	2.50	30	10/04/2023	
PFDoDA	47.6	2.0	ng/L	40.00	ND	119	70-130	0.836	30	10/04/2023	

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Organics-PFAS Isotope Dilution - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B3J0344 - Method: 3512				**Prepared: 10/03/2023**							
Matrix Spike Dup (B3J0344-MSD1)	**Source: 2309324-01**										
PFDS	43.6	2.0	ng/L	38.60	ND	113	70-130	0.275	30	10/04/2023	
PFECHS	44.2	2.0	ng/L	36.96	ND	119	70-130	2.11	30	10/04/2023	
PFHpA	50.2	2.0	ng/L	40.00	2.74	119	70-130	2.87	30	10/04/2023	
PFHpS	44.2	2.0	ng/L	38.12	ND	116	70-130	3.20	30	10/04/2023	
PFHxA	52.0	2.0	ng/L	40.00	3.74	121	70-130	0.811	30	10/04/2023	
PFHxS	44.0	2.0	ng/L	36.56	1.28	117	70-130	2.07	30	10/04/2023	
PFHxSA	46.2	2.0	ng/L	40.00	ND	116	70-130	1.61	30	10/04/2023	
PFNA	49.8	2.0	ng/L	40.00	1.78	120	70-130	1.41	30	10/04/2023	
PFNS	46.7	2.0	ng/L	38.48	ND	121	70-130	4.51	30	10/04/2023	
PFOA	62.1	2.0	ng/L	40.00	14.0	120	70-130	1.53	30	10/04/2023	
PFOS	45.7	2.0	ng/L	37.12	1.54	119	70-130	4.24	30	10/04/2023	
PFOSA	46.1	2.0	ng/L	40.00	ND	115	70-130	0.391	30	10/04/2023	
PFPeA	52.1	2.0	ng/L	40.00	3.42	122	70-130	0.460	30	10/04/2023	
PFPeS	44.4	2.0	ng/L	37.64	ND	118	70-130	3.44	30	10/04/2023	
PFTeDA	50.3	4.0	ng/L	40.00	ND	126	70-130	2.51	30	10/04/2023	
PFTrDA	44.3	4.0	ng/L	40.00	ND	111	70-130	3.35	30	10/04/2023	
PFUnDA	49.7	2.0	ng/L	40.00	ND	124	70-130	4.61	30	10/04/2023	
Isotope Dilution Analog: 13C2-4:2FTS	*150*		ng/L	*149.9*		*99.8*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-6:2FTS	*153*		ng/L	*152.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-8:2FTS	*148*		ng/L	*153.5*		*96.4*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA	*150*		ng/L	*160.0*		*93.6*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFDoDA+13C2-PFTeDA	*116*		ng/L	*160.0*		*72.3*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C2-PFTeDA	*73.9*		ng/L	*160.0*		*46.2*	*25-250*			10/04/2023	
Isotope Dilution Analog: 13C3-HFPODA	*332*		ng/L	*320.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFBS	*155*		ng/L	*149.0*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C3-PFHxS	*157*		ng/L	*151.6*		*104*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFBA	*150*		ng/L	*160.0*		*93.7*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C4-PFHpA	*163*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFHxA	*163*		ng/L	*160.0*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C5-PFPeA	*165*		ng/L	*160.0*		*103*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C6-PFDA	*162*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C7-PFUnDA	*156*		ng/L	*160.0*		*97.6*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOA	*159*		ng/L	*160.0*		*99.3*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOS	*156*		ng/L	*153.3*		*102*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C8-PFOSA	*167*		ng/L	*160.0*		*105*	*50-200*			10/04/2023	
Isotope Dilution Analog: 13C9-PFNA	*160*		ng/L	*160.0*		*100*	*50-200*			10/04/2023	
Isotope Dilution Analog: d3-N-MeFOSAA	*159*		ng/L	*160.0*		*99.6*	*50-200*			10/04/2023	
Isotope Dilution Analog: d5-N-EtFOSAA	*162*		ng/L	*160.0*		*101*	*50-200*			10/04/2023	

EGLE

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

PFAS Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
2309376	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	ENV WATER

Location ID	Program	Report CC Email 1	Project TAT Days*	Sample Collector
LB042449	201	carrj@aktpeerless.com		Kammie Niswander

Dept-Division-District	Activity	Report CC Email 2	Report Batch QC	Sample Collector Phone
RRD - Lansing Central		niswanderk@aktpeerless.com	Yes ☐ No ☐	989-844-6442

State Project Manager	Funding Source	Report CC Email 3	Lab Use Only	Contract Firm
Janet Michaluk			Sample Receipt Temperature: 3.9 °C	AKT Peerless

State Project Manager Email	Location Code	Overflow Lab Choice 1	Contract Firm Primary Contact
MichalukJ@michigan.gov	C033		Jeff Carr

State Project Manager Phone	SUD Location Code	Overflow Lab Choice 2	Received On Ice	Primary Contact Phone
517-643-0314			Yes ☑ No ☐	989-754-9896

*** Project Turnaround time (TAT) other than standard 21 days must be pre-approved and scheduled with the laboratory. Surcharges apply.**

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1		AKT-4/TMW	9/25/2023	11:35am	3	
2		AKT-8/TMW	9/25/2023	2:07pm	3	
3		Equipment Blank	9/25/2023	11:00am	3	
4		Trip Blank	9/25/2023		1	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

PFAS - Semi-Volatile Organic Compounds
PFAS - EPA 8327

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Kammie Niswander AKT	AKT Storage	9/25/23 5:00pm
Signature:	Kammie Niswander	Kammie Niswander	
Print Name & Org.	AKT Storage	Ashley Bergmooser AKT	9/29/23:
Signature:	Kammie Niswander	Ashley Bergmooser	
Print Name & Org.	Ashley Bergmooser	Melissa Smith	9/29/23: 1107
Signature:	Ashley Bergmooser	Melissa Smith	

Fibertec environmental services
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Wednesday, October 11, 2023

Fibertec Project Number:	A17490
Project Identification:	Imlay City Former Fire Hall /
Submittal Date:	09/28/2023

Ms. Janet Michaluk
EGLE - State Overflow
3350 N Martin Luther King Jr Blvd
Lansing, MI 48906

Dear Ms. Michaluk,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

Back sections of PAH tubes were analyzed and show no signs of breakthrough unless otherwise noted.

In regards to this project: Imlay city Former Fire Hall
File No.: 761/20138.AGY
Contract Order No.: Y20153
Location Code is: CO33

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Bailey Welch

By Bailey Welch at 1:37 PM, Oct 11, 2023

For Heather L. Smith
Director of Laboratory Operations

Enclosures

Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-001

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-1**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**10:16**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-001** **Matrix: Air**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: VP-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:14	SJ23J05A	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**87**	%	60-120	SJ	SJ23J05A	10/5/2023 15:14	1	SJAIR
1-Fluoronaphthalene(S)	**82**	%	60-120	SJ	SJ23J05A	10/5/2023 15:14	1	SJAIR
4-Terphenyl-d14(S)	**87**	%	60-120	SJ	SJ23J05A	10/5/2023 15:14	1	SJAIR

Fibertec environmental services
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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-002

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-1**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/29/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**10:29**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-002** **Matrix: Air**
Method: NIOSH 6009 (Modified) **Description: VP-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg/m3	0.50	1.0	10/10/23	PM23J10A	10/10/23	M723J10A	JLH

Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-003

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-2**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**11:04**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-003** **Matrix: Air**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: VP-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 15:41	SJ23J05A	KDG

Surrogate Summary

			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**99**	%	60-120	SJ	SJ23J05A	10/5/2023 15:41	1	SJAIR
1-Fluoronaphthalene(S)	**90**	%	60-120	SJ	SJ23J05A	10/5/2023 15:41	1	SJAIR
4-Terphenyl-d14(S)	**94**	%	60-120	SJ	SJ23J05A	10/5/2023 15:41	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-004

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-2**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**11:51**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-004** **Matrix: Air**
Method: NIOSH 6009 (Modified) **Description: VP-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg/m3	0.50	1.0	10/10/23	PM23J10A	10/10/23	M723J10A	JLH

Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-005

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-3**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**12:21**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-005** **Matrix: Air**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: VP-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:08	SJ23J05A	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**82**	%	60-120	SJ	SJ23J05A	10/5/2023 16:08	1	SJAIR
1-Fluoronaphthalene(S)	**79**	%	60-120	SJ	SJ23J05A	10/5/2023 16:08	1	SJAIR
4-Terphenyl-d14(S)	**86**	%	60-120	SJ	SJ23J05A	10/5/2023 16:08	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-006

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-3**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**12:34**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-006** **Matrix: Air**
Method: NIOSH 6009 (Modified) **Description: VP-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg/m3	0.50	1.0	10/10/23	PM23J10A	10/10/23	M723J10A	JLH

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-4**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**12:54**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-007** **Matrix: Air**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: VP-4**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 16:35	SJ23J05A	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**91**	%	60-120	SJ	SJ23J05A	10/5/2023 16:35	1	SJAIR
1-Fluoronaphthalene(S)	**82**	%	60-120	SJ	SJ23J05A	10/5/2023 16:35	1	SJAIR
4-Terphenyl-d14(S)	**86**	%	60-120	SJ	SJ23J05A	10/5/2023 16:35	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-008

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-4**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**13:07**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-008** **Matrix: Air**
Method: NIOSH 6009 (Modified) **Description: VP-4**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg/m3	0.50	1.0	10/10/23	PM23J10A	10/10/23	M723J10A	JLH

Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-009

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-DUP**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-009** **Matrix: Air**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: VP-DUP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg/m3	2.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg/m3	5.0	1.0	10/04/23	PS23J04A	10/05/23 17:03	SJ23J05A	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**88**	%	60-120	SJ	SJ23J05A	10/5/2023 17:03	1	SJAIR
1-Fluoronaphthalene(S)	**82**	%	60-120	SJ	SJ23J05A	10/5/2023 17:03	1	SJAIR
4-Terphenyl-d14(S)	**82**	%	60-120	SJ	SJ23J05A	10/5/2023 17:03	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-010

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**VP-DUP**	Chain of Custody:	**220596**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Air**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-010** **Matrix: Air**
Method: NIOSH 6009 (Modified) **Description: VP-DUP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg/m3	0.50	1.0	10/10/23	PM23J10A	10/10/23	M723J10A	JLH

Client Identification:	**EGLE - State Overflow**	Sample Description:	**Field Blank**	Chain of Custody:	**220319**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Blank: Tube**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-011** **Matrix: Blank: Tube**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: Field Blank**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 2. Acenaphthylene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 3. Anthracene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 4. Benzo(a)anthracene (SIM)	U		µg	0.0025	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 5. Fluorene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 6. 2-Methylnaphthalene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 7. Naphthalene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 8. Phenanthrene (SIM)	U		µg	0.0025	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG
‡ 9. Pyrene (SIM)	U		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:24	SJ23J05A	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**110**	%	60-120	SJ	SJ23J05A	10/5/2023 13:24	1	SJAIR
1-Fluoronaphthalene(S)	**101**	%	60-120	SJ	SJ23J05A	10/5/2023 13:24	1	SJAIR
4-Terphenyl-d14(S)	**99**	%	60-120	SJ	SJ23J05A	10/5/2023 13:24	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-012

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**Field Blank**	Chain of Custody:	**220319**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Blank: Tube**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-012** **Matrix: Blank: Tube**
Method: NIOSH 6009 (Modified) **Description: Field Blank**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	U		µg	0.0020	1.0	10/10/23	PM23J10A	10/10/23	M723J10B	JLH

Client Identification:	**EGLE - State Overflow**	Sample Description:	**Field Spike**	Chain of Custody:	**220319**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Field Spike: Tube**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons - Modified for GC/MS **Aliquot ID: A17490-013** **Matrix: Field Spike: Tube**
Method: NIOSH 5515 (Modified)/EPA TO-13A (Modified) **Description: Field Spike**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Acenaphthene (SIM)	**0.0078**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 2. Acenaphthene (SIM) (Recovery)	**78**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 3. Acenaphthylene (SIM)	**0.0079**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 4. Acenaphthylene (SIM) (Recovery)	**79**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 5. Anthracene (SIM)	**0.0078**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 6. Anthracene (SIM) (Recovery)	**78**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 7. Benzo(a)anthracene (SIM)	**0.0081**		µg	0.0025	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 8. Benzo(a)anthracene (SIM) (Recovery)	**81**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 9. Fluorene (SIM)	**0.0081**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 10. Fluorene (SIM) (Recovery)	**81**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 11. 2-Methylnaphthalene (SIM)	**0.0073**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 12. 2-Methylnaphthalene (SIM) (Recovery)	**73**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 13. Naphthalene (SIM)	**0.0098**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 14. Naphthalene (SIM) (Recovery)	**98**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 15. Phenanthrene (SIM)	**0.0091**		µg	0.0025	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 16. Phenanthrene (SIM) (Recovery)	**91**		%	0	1.0	NA	NA	10/05/23	NA	KDG
‡ 17. Pyrene (SIM)	**0.0081**		µg	0.0050	1.0	10/04/23	PS23J04A	10/05/23 13:52	SJ23J05A	KDG
‡ 18. Pyrene (SIM) (Recovery)	**81**		%	0	1.0	NA	NA	10/05/23	NA	KDG

Surrogate Summary			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
2-Fluorobiphenyl(S)	**90**	%	60-120	SJ	SJ23J05A	10/5/2023 13:52	1	SJAIR
1-Fluoronaphthalene(S)	**86**	%	60-120	SJ	SJ23J05A	10/5/2023 13:52	1	SJAIR
4-Terphenyl-d14(S)	**90**	%	60-120	SJ	SJ23J05A	10/5/2023 13:52	1	SJAIR

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Analytical Laboratory Report
Laboratory Project Number: A17490
Laboratory Sample Number: A17490-014

Order: A17490
Date: 10/11/23

Client Identification:	**EGLE - State Overflow**	Sample Description:	**Field Spike**	Chain of Custody:	**220319**
Client Project Name:	**Imlay City Former Fire Hall**	Sample No:		Collect Date:	**09/26/23**
Client Project No:	**NA**	Sample Matrix:	**Field Spike: Tube**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Mercury **Aliquot ID: A17490-014** **Matrix: Field Spike: Tube**
Method: NIOSH 6009 (Modified) **Description: Field Spike**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Mercury	**0.0081**		µg	0.0020	1.0	10/10/23	PM23J10A	10/10/23	M723J10B	JLH
‡ 2. Mercury (Recovery)	**81**		%	0	1.0	NA	NA	10/10/23	NA	JLH

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8660 S Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*
lab@fibertec.us

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QC limits
D: The sample or extract was analyzed at a DF greater than 1.

Exception Summary:

Analysis Locations:

All analyses performed in Holt.

NELAP ACCREDITED TNI LABORATORY

Accreditation Number(s):

T104704518-23-15 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Geoprobe
11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 220596
PAGE 1 of 2

Client Name: EGLE
Contact Person: Janet Michalwk
Project Name/ Number: Imlay City Former Fire Hall
Email distribution list: Michalwkj@Michigan.gov
Nisnanderk@aktpeerless.com
Quote# Y23031 - C033
Purchase Order# ISID #748

Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PAH	Hg	HOLD SAMPLE
9/26/23	10:16am		VP-1	A	1	X		
	10:29am		VP-1	A	1		X	
	11:04am		VP-2	A	1	X		
	11:51am		VP-2	A	1		X	
	12:21pm		VP-3	A	1	X		
	12:34pm		VP-3	A	1		X	
	12:54pm		VP-4	A	1	X		
	1:07pm		VP-4	A	1		X	
	—		VP-Dup	A	1	X		
	—		VP-Dup	A	1		X	

Matrix Code: S Soil; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

Deliverables: Level 2; Level 3; Level 4; X EDD

Remarks:

Received By Lab
SEP 28 2023
Initials: FA

Received On Ice

Comments:

Sampled/Relinquished By: Kammie Nisnander AKT	Date/ Time 9/26/23 4:00pm	Received By: AKT Cold Storage
Relinquished By: AKT Cold Storage	Date/ Time 9/28/23 1417	Received By:
Relinquished By:	Date/ Time 9/28/23 16:20	Received By Laboratory:

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

_____1 bus. day _____2 bus. days _____3 bus. days _____4 bus. days

X 5-7 bus. days (standard) Other (specify time/date requirement): _____

LAB USE ONLY
Fibertec project number: A17490
Temperature upon receipt at Lab: 1.5 °C

Please see back for terms and conditions

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

23 October 2023

Work Order: 2309365

Price: $900.00

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909

RE: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

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EGLE-RRD-LANSING	Project: IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY	
525 W. Allegan Street	Site Code: LB042449	**Reported:**
Lansing MI, 48909	Project Manager: Janet Michaluk	10/23/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
VP-1	2309365-01	Air	09/26/2023	09/29/2023	
VP-2	2309365-02	Air	09/26/2023	09/29/2023	
VP-3	2309365-03	Air	09/26/2023	09/29/2023	
VP-4	2309365-04	Air	09/26/2023	09/29/2023	
VP-Dup	2309365-05	Air	09/26/2023	09/29/2023	

Notes and Definitions

Y11	Unidentified peaks present in sample.
X1	Method TO-15 is used for the analysis of volatile organic compounds in air. Naphthalene and 2-Methylnaphthalene are semi volatile compounds and results should be considered estimated.
ND	Indicates the analyte was not detected at or above the method reporting limit (RL)
RL	Reporting Limit
NA	Not Applicable

Case Narrative

Samples were received **9/29/2023 11:30:00AM** for client **EGLE-RRD-LANSING** as a part of project **IMLAY CITY FORMER FIRE HALL/338 EAST 3RD ST,IMLAY**.

Samples were logged and designated as Work Order # **2309365** on **9/29/2023 11:45:00AM**.

This Report was created **10/23/2023 12:21:16PM**.

Additional Notes/Narrative (if applicable):

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Client ID: VP-1

Lab ID: 2309365-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	2.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
87-61-6	1,2,3-Trichlorobenzene	ND	7.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-18-4	1,2,3-Trichloropropane	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
526-73-8	1,2,3-Trimethylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-63-6	**1,2,4-Trimethylbenzene**	**4.3**	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-67-8	**1,3,5-Trimethylbenzene**	**3.4**	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-99-0	1,3-Butadiene	ND	0.65	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
78-93-3	2-Butanone (MEK)	ND	14	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
91-57-6	2-Methylnaphthalene	ND	28	ug/m3	1	10/05/23	B3J0922	TO-15	CA	X1
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-64-1	Acetone	ND	58	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-05-8	Acetonitrile	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
71-43-2	Benzene	ND	0.94	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-86-1	Bromobenzene	ND	1.9	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-25-2	Bromoform	ND	3.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
74-83-9	Bromomethane	ND	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-15-0	Carbon disulfide	ND	0.91	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
56-23-5	Carbon tetrachloride	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-90-7	Chlorobenzene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-00-3	Chloroethane	ND	0.77	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-66-3	Chloroform	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
74-87-3	**Chloromethane**	**0.80**	0.60	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
110-82-7	Cyclohexane	ND	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	10/05/23	B3J0922	TO-15	CA	

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Client ID: VP-1

Lab ID: 2309365-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	**Dichlorodifluoromethane**	**2.5**	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
60-29-7	Diethyl ether	ND	3.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-20-3	Diisopropyl Ether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
64-17-5	**Ethanol**	**62**	46	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
100-41-4	Ethylbenzene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
637-92-3	Ethyltertiarybutylether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-72-1	Hexachloroethane	ND	2.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
110-54-3	Hexane	ND	3.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-63-0	Isopropyl Alcohol	ND	60	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
98-82-8	Isopropylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
1330-20-7	**m & p - Xylene**	**8.3**	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-37-7	Methylcyclopentane	ND	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
91-20-3	Naphthalene	ND	26	ug/m3	1	10/05/23	B3J0922	TO-15	CA	X1
104-51-8	n-Butylbenzene	ND	5.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
142-82-5	n-Heptane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
103-65-1	n-Propylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-47-6	**o-Xylene**	**4.4**	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
109-66-0	Pentane	ND	2.9	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
135-98-8	sec-Butylbenzene	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
100-42-5	Styrene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
98-06-6	tert-Butylbenzene	ND	5.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-65-0	tertiary Butyl Alcohol	ND	74	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
994-05-8	tertiaryAmylmethylether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
127-18-4	**Tetrachloroethylene**	**49**	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
109-99-9	**Tetrahydrofuran**	**1.3**	0.86	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-88-3	**Toluene**	**3.4**	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-69-4	Trichlorofluoromethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-01-4	Vinyl chloride	ND	0.75	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
Surrogate: Bromofluorobenzene			*97.7 %*	*70-130*		*10/05/23*	B3J0922	*TO-15*	*CA*	

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Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: VP-2

Lab ID: 2309365-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	2.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
87-61-6	1,2,3-Trichlorobenzene	ND	7.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-18-4	1,2,3-Trichloropropane	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
526-73-8	1,2,3-Trimethylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-63-6	1,2,4-Trimethylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-67-8	1,3,5-Trimethylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-99-0	1,3-Butadiene	ND	0.65	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
78-93-3	2-Butanone (MEK)	ND	14	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
91-57-6	2-Methylnaphthalene	ND	28	ug/m3	1	10/05/23	B3J0922	TO-15	CA	X1
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-64-1	Acetone	ND	58	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-05-8	Acetonitrile	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
71-43-2	Benzene	ND	0.94	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-86-1	Bromobenzene	ND	1.9	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-25-2	Bromoform	ND	3.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
74-83-9	Bromomethane	ND	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-15-0	Carbon disulfide	ND	0.91	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
56-23-5	Carbon tetrachloride	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-90-7	Chlorobenzene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-00-3	Chloroethane	ND	0.77	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-66-3	Chloroform	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
74-87-3	**Chloromethane**	**0.68**	0.60	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
110-82-7	Cyclohexane	ND	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	10/05/23	B3J0922	TO-15	CA	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	**Dichlorodifluoromethane**	**2.4**	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
60-29-7	Diethyl ether	ND	3.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-20-3	Diisopropyl Ether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
64-17-5	**Ethanol**	**57**	46	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
100-41-4	Ethylbenzene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
637-92-3	Ethyltertiarybutylether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-72-1	Hexachloroethane	ND	2.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
110-54-3	Hexane	ND	3.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
67-63-0	Isopropyl Alcohol	ND	60	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
98-82-8	Isopropylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
1330-20-7	**m & p - Xylene**	**1.9**	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
96-37-7	Methylcyclopentane	ND	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-09-2	**Methylene chloride**	**1.3**	1.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
91-20-3	Naphthalene	ND	26	ug/m3	1	10/05/23	B3J0922	TO-15	CA	X1
104-51-8	n-Butylbenzene	ND	5.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
142-82-5	n-Heptane	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
103-65-1	n-Propylbenzene	ND	1.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
95-47-6	o-Xylene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
109-66-0	Pentane	ND	2.9	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
135-98-8	sec-Butylbenzene	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
100-42-5	Styrene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
98-06-6	tert-Butylbenzene	ND	5.4	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-65-0	tertiary Butyl Alcohol	ND	74	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
994-05-8	tertiaryAmylmethylether	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
127-18-4	**Tetrachloroethylene**	**6.7**	2.0	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
109-99-9	**Tetrahydrofuran**	**0.90**	0.86	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
108-88-3	**Toluene**	**2.5**	1.1	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-69-4	Trichlorofluoromethane	ND	1.6	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
75-01-4	Vinyl chloride	ND	0.75	ug/m3	1	10/05/23	B3J0922	TO-15	CA	
Surrogate: Bromofluorobenzene			*99.3 %*	*70-130*		*10/05/23*	B3J0922	*TO-15*	*CA*	

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

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

Client ID: VP-3

Lab ID: 2309365-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	2.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
87-61-6	1,2,3-Trichlorobenzene	ND	7.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-18-4	1,2,3-Trichloropropane	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
526-73-8	1,2,3-Trimethylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-63-6	**1,2,4-Trimethylbenzene**	**3.6**	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
78-87-5	1,2-Dichloropropane	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-67-8	1,3,5-Trimethylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-99-0	1,3-Butadiene	ND	0.64	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
540-84-1	**2,2,4-Trimethylpentane**	**7.8**	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
78-93-3	2-Butanone (MEK)	ND	14	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
91-57-6	2-Methylnaphthalene	ND	28	ug/m3	1	10/06/23	B3J1134	TO-15	CA	X1
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**4.7**	4.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-64-1	**Acetone**	**120**	58	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-05-8	Acetonitrile	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
71-43-2	**Benzene**	**4.3**	0.93	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-86-1	Bromobenzene	ND	1.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-25-2	Bromoform	ND	3.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
74-83-9	Bromomethane	ND	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-15-0	Carbon disulfide	ND	0.91	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
56-23-5	Carbon tetrachloride	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-90-7	Chlorobenzene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-00-3	Chloroethane	ND	0.77	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-66-3	Chloroform	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
74-87-3	**Chloromethane**	**2.0**	0.60	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
110-82-7	**Cyclohexane**	**4.0**	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	10/06/23	B3J1134	TO-15	CA	

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Lansing, MI 48909
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Client ID: VP-3

Lab ID: 2309365-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	**Dichlorodifluoromethane**	**2.5**	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
60-29-7	Diethyl ether	ND	2.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-20-3	Diisopropyl Ether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
64-17-5	**Ethanol**	**220**	46	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
100-41-4	**Ethylbenzene**	**4.7**	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
637-92-3	Ethyltertiarybutylether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-72-1	Hexachloroethane	ND	2.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
110-54-3	**Hexane**	**7.8**	3.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-63-0	Isopropyl Alcohol	ND	60	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
98-82-8	Isopropylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
1330-20-7	**m & p - Xylene**	**17**	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-37-7	**Methylcyclopentane**	**8.1**	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-09-2	**Methylene chloride**	**1.5**	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
91-20-3	Naphthalene	ND	25	ug/m3	1	10/06/23	B3J1134	TO-15	CA	X1
104-51-8	n-Butylbenzene	ND	5.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
142-82-5	**n-Heptane**	**4.5**	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
103-65-1	n-Propylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-47-6	**o-Xylene**	**5.4**	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
109-66-0	**Pentane**	**15**	2.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
135-98-8	sec-Butylbenzene	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
100-42-5	Styrene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
98-06-6	tert-Butylbenzene	ND	5.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-65-0	tertiary Butyl Alcohol	ND	74	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
994-05-8	tertiaryAmylmethylether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
127-18-4	**Tetrachloroethylene**	**7.3**	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
109-99-9	**Tetrahydrofuran**	**2.3**	0.86	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-88-3	**Toluene**	**26**	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-69-4	**Trichlorofluoromethane**	**4.2**	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-01-4	Vinyl chloride	ND	0.75	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
Surrogate: Bromofluorobenzene			*98.4 %*	*70-130*		*10/06/23*	B3J1134	*TO-15*	*CA*	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: VP-4

Lab ID: 2309365-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
71-55-6	**1,1,1-Trichloroethane**	**9.2**	8.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
79-00-5	1,1,2-Trichloroethane	ND	8.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	11	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
87-61-6	1,2,3-Trichlorobenzene	ND	36	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
96-18-4	1,2,3-Trichloropropane	ND	8.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
526-73-8	**1,2,3-Trimethylbenzene**	**7.5**	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
120-82-1	1,2,4-Trichlorobenzene	ND	18	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
95-63-6	**1,2,4-Trimethylbenzene**	**29**	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
96-12-8	1,2-Dibromo-3-chloropropane	ND	14	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
106-93-4	1,2-Dibromoethane	ND	11	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
95-50-1	1,2-Dichlorobenzene	ND	8.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
78-87-5	1,2-Dichloropropane	ND	6.7	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
108-67-8	**1,3,5-Trimethylbenzene**	**12**	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
106-99-0	1,3-Butadiene	ND	3.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
541-73-1	1,3-Dichlorobenzene	ND	8.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
106-46-7	1,4-Dichlorobenzene	ND	8.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
540-84-1	2,2,4-Trimethylpentane	ND	6.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
78-93-3	**2-Butanone (MEK)**	**250**	72	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
91-57-6	2-Methylnaphthalene	ND	140	ug/m3	5	10/06/23	B3J1134	TO-15	CA	X1
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**38**	20	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
67-64-1	**Acetone**	**4100**	290	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-05-8	Acetonitrile	ND	8.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
107-13-1	Acrylonitrile	ND	5.3	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
71-43-2	**Benzene**	**44**	4.7	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
108-86-1	Bromobenzene	ND	9.4	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-27-4	Bromodichloromethane	ND	9.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-25-2	Bromoform	ND	15	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
74-83-9	**Bromomethane**	**10**	5.7	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-15-0	**Carbon disulfide**	**13**	4.5	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
56-23-5	Carbon tetrachloride	ND	9.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
108-90-7	Chlorobenzene	ND	6.7	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-00-3	Chloroethane	ND	3.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
67-66-3	Chloroform	ND	7.1	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
74-87-3	**Chloromethane**	**650**	3.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
10061-01-5	cis-1,3-Dichloropropylene	ND	6.6	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
110-82-7	**Cyclohexane**	**84**	5.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	

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Client ID: VP-4

Lab ID: 2309365-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
124-48-1	Dibromochloromethane	ND	12	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-71-8	**Dichlorodifluoromethane**	**12**	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
60-29-7	Diethyl ether	ND	15	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
108-20-3	Diisopropyl Ether	ND	6.1	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
64-17-5	**Ethanol**	**1500**	230	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
100-41-4	**Ethylbenzene**	**31**	6.3	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
637-92-3	Ethyltertiarybutylether	ND	6.1	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
67-72-1	Hexachloroethane	ND	14	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
110-54-3	**Hexane**	**120**	17	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
67-63-0	Isopropyl Alcohol	ND	300	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
98-82-8	Isopropylbenzene	ND	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
1330-20-7	**m & p - Xylene**	**120**	6.3	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
96-37-7	**Methylcyclopentane**	**110**	5.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-09-2	Methylene chloride	ND	5.1	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
1634-04-4	Methyltertiarybutylether	ND	8.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
91-20-3	Naphthalene	ND	130	ug/m3	5	10/06/23	B3J1134	TO-15	CA	X1
104-51-8	n-Butylbenzene	ND	27	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
142-82-5	**n-Heptane**	**55**	6.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
103-65-1	n-Propylbenzene	ND	7.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
95-47-6	**o-Xylene**	**19**	6.3	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
109-66-0	**Pentane**	**270**	14	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
135-98-8	sec-Butylbenzene	ND	8.0	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
100-42-5	Styrene	ND	6.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
98-06-6	tert-Butylbenzene	ND	27	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-65-0	tertiary Butyl Alcohol	ND	370	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
994-05-8	tertiaryAmylmethylether	ND	6.1	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
127-18-4	**Tetrachloroethylene**	**100**	9.9	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
109-99-9	**Tetrahydrofuran**	**5.2**	4.3	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
108-88-3	**Toluene**	**140**	5.5	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
10061-02-6	trans-1,3-Dichloropropylene	ND	6.6	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
79-01-6	Trichloroethylene	ND	7.8	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-69-4	**Trichlorofluoromethane**	**9.3**	8.2	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
75-01-4	Vinyl chloride	ND	3.7	ug/m3	5	10/06/23	B3J1134	TO-15	CA	
Surrogate: Bromofluorobenzene			*99.0 %*	*70-130*		*10/06/23*	B3J1134	*TO-15*	*CA*	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY**

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

Client ID: VP-Dup

Lab ID: 2309365-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	2.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
87-61-6	1,2,3-Trichlorobenzene	ND	7.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-18-4	1,2,3-Trichloropropane	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
526-73-8	1,2,3-Trimethylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-63-6	1,2,4-Trimethylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
78-87-5	1,2-Dichloropropane	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-67-8	1,3,5-Trimethylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-99-0	1,3-Butadiene	ND	0.64	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
78-93-3	2-Butanone (MEK)	ND	14	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
91-57-6	2-Methylnaphthalene	ND	28	ug/m3	1	10/06/23	B3J1134	TO-15	CA	X1
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-64-1	Acetone	ND	58	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-05-8	Acetonitrile	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
71-43-2	Benzene	ND	0.93	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-86-1	Bromobenzene	ND	1.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-25-2	Bromoform	ND	3.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
74-83-9	Bromomethane	ND	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-15-0	Carbon disulfide	ND	0.91	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
56-23-5	Carbon tetrachloride	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-90-7	Chlorobenzene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-00-3	Chloroethane	ND	0.77	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-66-3	Chloroform	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
74-87-3	**Chloromethane**	**1.2**	0.60	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
110-82-7	Cyclohexane	ND	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	10/06/23	B3J1134	TO-15	CA	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY**

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

Client ID: VP-Dup

Lab ID: 2309365-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										**See note Y11**
75-71-8	**Dichlorodifluoromethane**	**2.3**	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
60-29-7	Diethyl ether	ND	2.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-20-3	Diisopropyl Ether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
64-17-5	Ethanol	ND	46	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
100-41-4	Ethylbenzene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
637-92-3	Ethyltertiarybutylether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-72-1	Hexachloroethane	ND	2.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
110-54-3	Hexane	ND	3.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
67-63-0	Isopropyl Alcohol	ND	60	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
98-82-8	Isopropylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
1330-20-7	**m & p - Xylene**	**1.6**	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
96-37-7	Methylcyclopentane	ND	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
91-20-3	Naphthalene	ND	25	ug/m3	1	10/06/23	B3J1134	TO-15	CA	X1
104-51-8	n-Butylbenzene	ND	5.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
142-82-5	n-Heptane	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
103-65-1	n-Propylbenzene	ND	1.4	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
95-47-6	o-Xylene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
109-66-0	Pentane	ND	2.9	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
135-98-8	sec-Butylbenzene	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
100-42-5	Styrene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
98-06-6	tert-Butylbenzene	ND	5.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-65-0	tertiary Butyl Alcohol	ND	74	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
994-05-8	tertiaryAmylmethylether	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
127-18-4	**Tetrachloroethylene**	**3.6**	2.0	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
109-99-9	Tetrahydrofuran	ND	0.86	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
108-88-3	**Toluene**	**1.7**	1.1	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.3	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-69-4	Trichlorofluoromethane	ND	1.6	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
75-01-4	Vinyl chloride	ND	0.75	ug/m3	1	10/06/23	B3J1134	TO-15	CA	
Surrogate: Bromofluorobenzene			*98.7 %*	*70-130*		*10/06/23*	B3J1134	*TO-15*	*CA*	

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
23093605	Imlay City Former Fire Hall / 338 East 3rd Street, Imlay City, MI	AIR

Location ID:	Program: 201	CC Email 1: carrj@aktpeerless.com	Project TAT Days:	Sample Collector: Kammie Niswander
Dept-Division-District: RRD - Lansing District	Actitivy:	CC Email 2: niswanderk@aktpeerless.com	Project Due Date:	Sample Collector Phone: 989-844-6442
State Project Manager: Janet Michaluk	Funding Source:	CC Email 3:		Contract Firm: AKT Peerless
State Project Manager Email: MichalukJ@michigan.gov	Location Code: C033	Overflow Lab Choice 1:	Accept Analysis hold time codes:	Contract Firm Primary Contact: Jeff Carr
State Project Manager Phone: 517-643-0314	SUD Location Code:	Overflow Lab Choice 2:		989-754-9896

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments	Regulator ID	Canister/Bottle Vac Number
1	01	VP-1	9/26/2023	9:43am	1		929	1316
2	02	VP-2	9/26/2023	10:41am	1		946	1359
3	03	VP-3	9/26/2023	11:15am	1		950	1932
4	04	VP-4	9/26/2023	11:41am	1		907	1519
5	05	VP-Dup	9/26/2023		1		917	1531
6								
7								
8								
9								
10								

ORGANIC CHEMISTRY

VOA - Volatile Organic Analysis

Bottlevac	1 2 3 4 5 6 7 8 9 10
Canister - AQD	1 2 3 4 5 6 7 8 9 10
Canister - RRD	1 2 3 4 5 6 7 8 9 10
Tedlar - Volatiles	1 2 3 4 5 6 7 8 9 10

METH - Methane, Ethane, Ethene

Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Kammie Niswander AKT	AKT Storage	9/26/23 4:00pm
Signature:	Kammie Niswander	Kammie Niswander	
Print Name & Org.	AKT Storage	Ashley Bergmooser	9/29/23
Signature:	Kammie Niswander	Ashley Bergmooser	
Print Name & Org.	Ashley Bergmooser	Melissa Smith	9/29/23 1130
Signature:	Ashley Bergmooser		

Fibertec environmental services

Analytical Laboratory

1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Geoprobe

11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 220319

Client Name: EGLE
Contact Person: Janet Michalik
Project Name/ Number: Imlay City Former Fire Hall
Email distribution list: MichalikJ@michigan.gov
niswanderk@aktpeerless.com
Quote# V23031 - C033
Purchase Order# ISID # 748

Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PARAMETERS: PAH	PARAMETERS: Hg	HOLD SAMPLE
9/20/23			Field Blank	A	1	X		
			Field Blank	A	1		X	
			Field Spike	A	1	X		
			Field Spike	A	1		X	

Matrix Code

S	Soil	GW	Ground Water
A	Air	SW	Surface Water
O	Oil	WW	Waste Water
P	Wipe	X	Other: Specify

Deliverables

- Level 2
- Level 3
- Level 4
- X EDD

Remarks:

Received By Lab
SEP 28 2023
Initials: EA

Received On Ice

Comments:

	Date/ Time	
Sampled/Relinquished By: Kammie Niswander	9/20/23 4pm	Received By: AKT Cold Storage
Relinquished By: AKT Cold Storage	9/28/23 1447	Received By:
Relinquished By:	9/28/23 16:20	Received By Laboratory: EA

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

_____1 bus. day _____2 bus. days _____3 bus. days _____4 bus. days

10 5-7 bus. days (standard) Other (specify time/date requirement): _____

LAB USE ONLY

Fibertec project number: A19490

Temperature upon receipt at Lab: 1.5 °C

Please see back for terms and conditions

Fibertec environmental services

Vapor Tube Sampling Field Worksheet

Client Name: EGLE | Sample Date: 9/26/23

Project Name/Number: 18286s | Sampled By: KN/KAS

Sample Identifiers					Field Calibration					
Time Collected	Sample Descriptor	Tube Lot Number	Vapor Kit Number	Analysis Requested	Field Pre Cal Rate (L/min)	** Pre Back Pressure (hPa)	** Post Back Pressure (hPa)	Field Post Cal Rate (L/min)	***Field Cal Average (L/min)	Total Time (minutes)
N/A	Field Blank	13908	N/A	PAH	N/A	N/A	N/A	N/A	N/A	N/A
		F.S. ID Number								
N/A	Field Spike	13908	N/A		N/A	N/A	N/A	N/A	N/A	N/A
10:16 am	VP-1	13908	#7		0.2	1.64	1.80	0.2	0.2	10:06-10:16am
11:04am	VP-2				0.2	-3.64	-3.56	0.2	0.2	10:54-11:04am
12:21pm	VP-3				0.2	1.87	*2.95	0.2	0.2	12:11-12:21pm
12:54pm	VP-4				0.2	0.67	0.78	0.2	0.2	12:44-12:54pm
	VP-Dup				0.2	0.92	0.89	0.2	0.2	10 min

*Comments: The manometer powered off with 2 minutes left on VP-3 when getting post back pressure

I verify that the field sampling was conducted in accordance with the specification(s) in the approval letter(s) included in the sampling kit.

* Any deviation or issue with sample collection will be noted above.

Sampling Notes

**Maximum Vacuum during sampling should be < 75hPa H_2O compared to ambient
*** Collection rate should be a maximum 0.2 L/minute

~~Sampling Media~~

Mercury: 200 mg Anasorb	PAH: 150mg XAD-2	PCB: 150 mg Florisil

Signature: Kammie Nisnander

Printed Name: Kammie Nisnander

Date: 9/26/23

Page 1 of 1

Lab Use Only:
Fibertec Project Number:

Fibertec environmental services

Vapor Tube Sampling Field Worksheet

Client Name: EGLE

Project Name/Number: 182865

Sample Date: 9/26/23

Sampled By: KN/KAS

Sample Identifiers					Field Calibration					
Time Collected	Sample Descriptor	Tube Lot Number	Vapor Kit Number	Analysis Requested	Field Pre Cal Rate (L/min)	** Pre Back Pressure (hPa)	** Post Back Pressure (hPa)	Field Post Cal Rate (L/min)	***Field Cal Average (L/min)	Total Time (minutes)
N/A	Field Blank	14282/d0299	N/A	Hg	N/A	N/A	N/A	N/A	N/A	N/A
N/A	Field Spike	F.S. ID Number 14282/010299	N/A	Hg	N/A	N/A	N/A	N/A	N/A	N/A
10:29am	VP-1	14282/010299	#7	Hg	0.2	0.45	0.5	0.2	0.2	10:19-10:29am
11:51am	VP-2	"	"	Hg	0.2	2.46	2.52	0.2	0.2	11:41-11:51am
12:34pm	VP-3	"	"	Hg	0.2	4.48	4.59	0.2	0.2	12:24pm-12:34pm
1:07pm	VP-4	"	"	Hg	0.2	-3.57	-3.27	0.2	0.2	12:57-1:07pm
	VP-DUP	"	"	Hg	0.2	1.09	1.10	0.2	0.2	10 mins

*Comments:

I verify that the field sampling was conducted in accordance with the specification(s) in the approval letter(s) included in the sampling kit.

* Any deviation or issue with sample collection will be noted above.

Signature: Kammie Nisnander

Printed Name: Kammie Nisnander

Date: 9/26/23

Sampling Notes

**Maximum Vacuum during sampling should be < 75hPa H_2O compared to ambient
*** Collection rate should be a maximum 0.2 L/minute

Sampling Media

Mercury: 200 mg Anasorb	PAH: 150mg XAD-2	PCB: 150 mg Florisil

Lab Use Only:
Fibertec Project Number: