STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

June 23, 2022

VIA E-MAIL

Mouhamed Musheinesh, President
Detroit Axle
2000 West 8 Mile Road
Ferndale, Michigan 48220

Dear Mouhamed:

SUBJECT: Comments; *RCRA Interim Work Plan Investigation Report - Eastern Site Boundary*; Former Hayes Lemmerz; Ferndale, Michigan; MID 041 803 123; Waste Data System Number 395519

The Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD), has completed its review of the Resource Conservation and Recovery Act, Interim Work Plan Investigation Report - Eastern Site Boundary (Report) dated April 19, 2022, and prepared by Atlas Technical Consultants, LLC, on behalf of Detroit Axle, for the former Hayes Lemmerz property located at 1600 West 8 Mile Road, Ferndale, Michigan. The Report was reviewed for compliance with Part 111, Hazardous Waste Management (Part 111), of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and its administrative rules.

Based on our review, the MMD has the comments provided below.

1. **General Comment:** This Report, as well as all future reports, must provide the certification statement required pursuant to Title 40, Code of Federal Regulations, Part 270.11(b).

2. **Section 2, Recent Activities, Soil Gas Sampling:** The Report must be revised to clarify the second paragraph of this section that describes the helium shroud testing, which is one of the methods used for leak detection testing. As written, the procedure appears to be inconsistent with the actual procedure used, where helium was analyzed in the actual sample from the summa canister to determine if the sample point/sample train was leaking.

3. **Section 3, Results, Soil Gas Field Screening Results:** The Report must be modified to provide additional description of how the field screening data was collected, and additional discussion regarding the results of each of the specific soil gas compounds monitored; the “average concentration” provided without any discussion is not useful. It was also noted that most of the oxygen readings collected resembled atmospheric oxygen concentrations; it would be expected that lower oxygen concentrations would be present at depth.

4. **Section 3, Results, Laboratory Analytical Results:** The Report compares the laboratory analytical data against the current EGLE non-residential screening criteria as specified in approved Work Plan. However, moving forward, applicable, and enforceable site-specific volatilization to indoor air criteria (SSVIAC) must be developed and approved for the site in order to define exceedances of soil and groundwater criteria and define the vapor source(s) in soil and groundwater. EGLE has previously developed SSVIAC for the facility and were transmitted to previous owners of the facility, Pinecrest Holdings in an October 22, 2019, letter. These criteria are attached to this letter and can become the SSVIAC for the facility if the facility agrees to accept them. Alternatively, pursuant to Section 20120(a)(2) of Part 201, Environmental Remediation (Part 201), of the NREPA, the facility also has the option to develop their own criteria; however, these require EGLE review and approval prior to implementation. The facility needs to consider the alternatives available to them regarding the development of applicable and enforceable SSVIAC and let EGLE know how they plan to proceed.

5. **Section 3, Results, Laboratory Analytical Results, Groundwater:** The Report must be revised to clarify whether the metals in groundwater analyses were for total or dissolved metals. Table 2 specifies dissolved metals, but the text, field sheets (Appendix B), and the Chain-of-Custody (Appendix D) do not indicate whether the samples were filtered prior to analysis. Filtration for dissolved metals analysis was not specified in the approved work plan. All Part 201 groundwater criteria are based on total metals concentration, and total metals analysis is required for appropriate comparison to Part 201 criteria.

6. **Section 4, Summary and Conclusions, Groundwater Results:** It should be noted that although the drinking water and groundwater to surface water interface pathways are not currently complete due to local institutional controls that are in place as recognized by the Report, off-site delineation of site related exceedances of these pathways is still required to document the areas with exceedances and to ensure reliable restrictions are in place in the event of future changes in the current institutional controls and/or land use.

7. **Section 4, Summary and Conclusions, Soil Gas Results:** EGLE is not in agreement with the conclusion that “If we do not have exceedances in soil gas following the additional sampling event, additional soil gas sampling in this location will not be recommended”. It should be noted that if the recommended off-site groundwater investigation to be implemented detects exceedances of volatilization to indoor air pathway screening levels, then the potential for soil gas impacts related to this groundwater source of vapors will need to be investigated. In addition, site related constituents of concern (COC) have already been documented off-site in soil gas as part of the referenced EGLE investigation conducted in 2018.

8. **Section 5, Proposed Future Activities:**

    a. The Report must be revised to provide a detailed schedule for the proposed future work.
    b. Detroit Axle should consider revising the Report to add another new monitoring well, north of the northernmost proposed monitoring well, and between monitoring

wells (MW) MW-113, and MW-119. This well is necessary in order to completely delineate off-site exceedances in groundwater.

c. Detroit Axle should consider revising the Report to provide for soil gas sampling of the previously installed EGLE soil gas wells. Additional information regarding the location of the EGLE installed soil gas wells is attached.
d. The Report must be revised to provide for analysis and reporting of the full list of volatile organic compounds and per- and polyfluoroalkyl substances regulated by Part 201. This is needed to confirm site COC and evaluate potential variability in these classes of compounds. In addition, if dissolved metals were analyzed in the December 2021 sampling event, then the full list of Part 201 regulated total metals must be analyzed for (see Comment 5 above).

9. **Appendix C, Low-Flow Groundwater Sampling Data Sheets:** Based on EGLE review of the low-flow sampling logs in Appendix C, it appears that the stabilization criteria were not documented prior to initiating sampling at MW-106 (oxidation-reduction potential [ORP] and specific conductivity) and MW-108 (ORP and dissolved oxygen), and the results at these locations are recognized as potentially non-representative samples. Future sampling events must document stabilization prior to sampling or re-sampling will be required.

Please provide a response to the comments and a revised Report within 30 days of receipt of this letter.

If you have any questions or would like to meet regarding the comments, please contact Joe Rogers, Geologist Specialist, Technical Support Unit, at 517-284-6569; RogersJ5@Michigan.gov; or EGLE, MMD, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Dale Bridgford, Supervisor
Technical Support Unit
Hazardous Waste Section
Materials Management Division
517-582-3050

Attachments

cc: Andrew Stuart, Senior Project Manager, ATC Group Services, LLC
Arthur Siegal, Partner, Jaffe Raitt Heuer & Weiss, P.C.
Kyle Bryce, Planner, City of Ferndale
Justin Lyons, Planning Manager, City of Ferndale
Mark Hansell, Chief of Environmental Health Services Oakland County Health Department
Alexandra Rafalski, Department of Health, and Human Services
Alexandra Clark, EGLE
Kimberly Tyson, EGLE
Mary Carnagie, EGLE
Richard Conforti, EGLE
John McCabe, EGLE
Joe Rogers, EGLE
Nathan Erber, EGLE
Daniel Gough, EGLE
Dave Willard, EGLE
Jeremy Pepin, EGLE
Corrective Action File

DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

INTEROFFICE COMMUNICATION

TO: Ronda Blayer, Environmental Engineering Specialist, WMRPD

FROM: Shane Morrison, Toxicologist, RRD

DATE: May 21, 2019

SUBJECT: Hayes Lemmerz Site-Specific Criteria Evaluation

The following site-specific volatilization to indoor air criteria (VIAC) are the Michigan Department of Environment, Great Lakes, and Energy's (EGLE's) determination of values that reflect best available information regarding the toxicity and exposure risks posed by the hazardous substances present at the facility. These values are based upon the information provided with the request to develop site-specific VIAC for this facility. These values may be used provided it is documented that the conditions used to develop the site-specific criteria are met at the facility. Other values may be developed by a person consistent with the statutory provisions for development of site-specific criteria and provided for EGLE review and approval.

Correspondence transmitting these values to the submitter/consultant as part of a report, review, or other request must incorporate the appropriate sections of the VIAP model document language. As indicated in this document, when GVIIC and SVIIC are not applicable, the correspondence must include language indicating the requirement to satisfy the site-specific VIAC for all three media i.e., groundwater, soil, and soil gas. In addition, all of the following site-specific VIAC tables must be copied into the correspondence or letter as part of your response to the submitter/consultant.

Unrestricted residential site-specific criteria were included in the evaluation based on information provided and EGLE's residential conceptual site model. Exceedance of the site-specific unrestricted residential criteria will require restrictions or institutional controls for closure or aid in the determination of off-site migration.

The site-specific criteria were generated using the USDA soil type of sand. Other site-specific criteria can be generated using a different soil type by providing soil characterization results from department approved methods on soils collected at the site.

Additional hazardous substances were included in the site-specific evaluation that were not explicitly requested. These hazardous substances may be components of recent petroleum releases. The preemptive site-specific evaluation of these substances was provided to limit the potential need for future resubmittal for this facility.

Please contact me at MorrisonS5@michigan.gov or 517-284-5063 if you require any clarification of these comments and criterion or have additional questions.

cc: Christine Flaga, Toxicology Unit Supervisor, RRD
Al Taylor, Section Manager, WMRPD
Virginia Himich, Environmental Manager, WMRPD

Rich Conforti, Environmental Manager, WMRPD
Joe Rogers, Geologist Specialist, WMRPD
John McCade, Senior Environmental Quality Analyst, WMRPD
Nathan Erber, Geologist, WMRPD

Table 1. Residential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a residential house with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 8 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater In Contact (GWIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m^3)
75058	Acetonitrile	38,000 nc	620 (M) nc	2,100 nc
107131	Acrylonitrile	85 ca	1.2 (M) ca	12 ca
71432	Benzene	25 ca	1.7 (M) ca	110 ca
75274	Bromodichloromethane	43 ca	0.61 (M) ca	48 ca
75252	Bromoform	4,300 ca	45 (M) ca	770 ca
74839	Bromomethane	44 nc	0.90 (M) nc	350 nc
78933	2-Butanone (MEK)	2.7E+06 (SE) dev	31,000 (SE) dev	1.7E+05 (SE) dev
75650	t-Butyl alcohol	230 (ID) nc	DATA	2,500 nc
104518	n-Butylbenzene	1,500 nc	560 nc	7,000 nc
135988	sec-Butylbenzene	4,800 nc	3,800 nc	14 nc
98066	t-Butylbenzene	2.5 nc	0.64 (M) nc	14 nc
56235	Carbon tetrachloride	9.9 ca	0.31 (M) ca	150 ca
108907	Chlorobenzene	970 nc	82 nc	1,700 nc
75003	Chloroethane	11,000 nc	330 nc	1.4E+05 nc
67663	Chloroform	14 ca	0.26 (M) ca	37 ca
74873	Chloromethane	260 nc	6.9 (M) nc	3,100 nc
124481	Dibromochloromethane	40 mut	0.40 (M) mut	14 mut
95501	1,2-Dichlorobenzene	14,000 nc	1,500 nc	10,000 nc
541731	1,3-Dichlorobenzene	96 nc	10 (M) nc	100 nc
106467	1,4-Dichlorobenzene	220 ca	23 (M) ca	220 ca
75718	Dichlorodifluoromethane	51 nc	12 (M) nc	11,000 nc
75343	1,1-Dichloroethane	120 ca	2.6 (M) ca	530 ca
107062	1,2-Dichloroethane	36 ca	0.82 (M) ca	33 ca
75354	1,1-Dichloroethylene	300 nc	12 (M) nc	7,000 nc
156592	cis-1,2-Dichloroethylene	83 nc	2.1 (M) nc	280 nc
156605	trans-1,2-Dichloroethylene	350 nc	12 (M) nc	2,800 nc

Table 1. Residential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a residential house with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 8 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater In Contact (GWIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m^3)
78875	1,2-Dichloropropane	76 nc	2.1 (M) nc	140 nc
542756	1,3-Dichloropropene (J)	93 ca	3.1 (M) ca	210 ca
64175	Ethanol	8.2E+07 (SE) st	1.3E+06 (SE) st	6.3E+05 (SE) st
637923	Ethyl-tert-butyl ether (ETBE)	22 (ID) nc	DATA	13,000 nc
100414	Ethylbenzene	81 ca	12 (M) ca	340 ca
106934	Ethylene dibromide	5.5 ca	7.4E-02 (M) ca	1.4 ca
110543	n-Hexane	29 (GW) nc	25 nc	24,000 nc
98828	Isopropyl benzene	18 ca	3.8 (M) ca	81 ca
108101	4-Methyl-2-pentanone (MIBK)	1.1E+06 (SE) dev	12,000 (SE) dev	1.0E+05 (SE) dev
1634044	Methyl-tert-butyl ether (MTBE)	7,200 ca	74 (M) ca	3,300 ca
75092	Methylene chloride	6,700 nc	130 nc	21,000 nc
91576	2-Methylnaphthalene	2,400 nc	1,700 nc	350 nc
91203	Naphthalene	130 ca	67 (M) ca	25 ca
103651	n-Propylbenzene	7,500 (SE) dev	1,800 (SE) dev	33,000 (SE) dev
100425	Styrene	1,000 ca	150 ca	1,500 ca
630206	1,1,1,2-Tetrachloroethane	130 ca	3.2 (M) ca	110 ca
79345	1,1,2,2-Tetrachloroethane	88 ca	2.7 (M) ca	15 ca
127184	Tetrachloroethylene	180 (EE) st	6.2 (M) st	1,400 (EE) st
108883	Toluene	41,000 nc	3,700 nc	1.7E+05 nc
71556	1,1,1-Trichloroethane	16,000 (SE) st	450 (SE) st	1.7E+05 (SE) st
79005	1,1,2-Trichloroethane	15 nc	0.37 (M) nc	7.0 nc
79016	Trichloroethylene	11 (SE) dev	0.33 (M) (SE) dev	67 (SE) dev
75694	Trichlorofluoromethane	220 nc	19 (M) nc	15,000 nc
540841	2,2,4-Trimethyl pentane	160 (GW) nc	130 (M) nc	1.2E+05 nc
526738	1,2,3-Trimethylbenzene	1,500 (TMB) nc	270 (TMB) nc	2,100 (TMB) nc
95636	1,2,4-Trimethylbenzene	810 (TMB) nc	150 (TMB) nc	2,100 (TMB) nc

Table 1. Residential Volatilization to Indoor Air Criteria (VIAC). The following are **restricted** site-specific criteria that apply to a residential house with a **slab-on-grade**, the depth to groundwater submitted for this site (i.e. 8 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater In Contact (GWIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m^3)
108678	1,3,5-Trimethylbenzene	570 (TMB) nc	100 (TMB) nc	2,100 (TMB) nc
75014	Vinyl chloride	1.6 mut	8.2E-02 (M) mut	54 mut
1330207	Xylenes (J)	2,200 nc	280 nc	7,600 nc

**Soil gas site-specific criteria are applicable for all depths.

- Acceptable Air Values (AAV) endpoint basis used for site-specific criterion: (**ca**) = Carcinogenetic; (**nc**) = Non-Carcinogenetic; (**dev**) = Developmental; (**mut**) = Mutagenic cancer; (**st**) = Short-term (i.e., less than chronic exposure): Agency for Toxic Substances and Disease Registry Inhalation Minimum Risk Level for Acute Inhalation or Intermediate Inhalation exposure durations; U.S. Environmental Protection Agency Integrated Risk Information System Reference Concentration for short-term exposure; or Air Quality Division Acute Initial Threshold Screening Level.
- Footnote **DATA**: Insufficient physical chemical parameters to calculate site-specific criteria for specified media. If detections are present in specified media, site-specific soil gas criteria should be used to evaluate risk.
- Footnote **GW**: The calculated value for a hazardous substance based upon GWIC is considered protective when it is greater than the calculated value for GWNIC.
- Footnote **ID**: Requires further evaluation to determine the appropriate media to sample.
- Footnote **J**: Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.
- Footnote **M**: Site-specific criterion may be below target detection limits (**TDL**). In accordance with Sec. 20120a(10) when the TDL for a hazardous substance is greater than the developed cleanup criterion, the criterion is the TDL.
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- Footnote **SE**: Site-specific criteria based on single event exposure; therefore, sampling methods should reflect shorter exposure scenarios.
- Footnote **S**: Calculated health-based value exceeds the hazardous substance-specific water solubility limit; therefore, the water solubility limit is the criterion.

Table 2. Residential Volatilization to Indoor Air Criteria (VIAC). The following are **unrestricted** site-specific criteria that apply to a residential house with a **basement**, the depth to groundwater submitted for this site (i.e. 8 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater In Contact (GWIC) (µg/L)	Soil (µg/kg)	Soil Gas** (µg/m^3)
75058	Acetonitrile	2,800 nc	620 (M) nc	2,100 nc
107131	Acrylonitrile	4.6 ca	1.2 (M) ca	12 ca
71432	Benzene	1.0 ca	1.7 (M) ca	110 ca
75274	Bromodichloromethane	1.2 ca	0.61 (M) ca	48 ca
75252	Bromoform	89 ca	45 (M) ca	770 ca
74839	Bromomethane	2.1 (M) nc	0.90 (M) nc	350 nc
78933	2-Butanone (MEK)	2,600 (SE) dev	31,000 (SE) dev	1.7E+05 (SE) dev
75650	t-Butyl alcohol	230 (ID) nc	DATA	2,500 nc
104518	n-Butylbenzene	44 nc	550 nc	7,000 nc
135988	sec-Butylbenzene	270 nc	3,800 nc	14 nc
98066	t-Butylbenzene	7.7E-02 (M) nc	0.64 (M) nc	14 nc
56235	Carbon tetrachloride	0.41 (M) ca	0.31 (M) ca	150 ca
108907	Chlorobenzene	33 nc	82 nc	1,700 nc
75003	Chloroethane	620 nc	330 nc	1.4E+05 nc
67663	Chloroform	0.49 (M) ca	0.26 (M) ca	37 ca
74873	Chloromethane	15 nc	6.9 (M) nc	3,100 nc
124481	Dibromochloromethane	0.78 (M) mut	0.40 (M) mut	14 mut
95501	1,2-Dichlorobenzene	370 nc	1,500 nc	10,000 nc
541731	1,3-Dichlorobenzene	2.6 nc	10 (M) nc	100 nc
106467	1,4-Dichlorobenzene	5.9 ca	23 (M) ca	220 ca
75718	Dichlorodifluoromethane	13 nc	12 (M) nc	11,000 nc
75343	1,1-Dichloroethane	4.7 ca	2.6 (M) ca	530 ca
107062	1,2-Dichloroethane	1.4 ca	0.82 (M) ca	33 ca
75354	1,1-Dichloroethylene	18 nc	12 (M) nc	7,000 nc
156592	cis-1,2-Dichloroethylene	3.4 nc	2.1 (M) nc	280 nc
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637923	Ethyl-tert-butyl ether (ETBE)	22 (ID) nc	DATA	13,000 nc
100414	Ethylbenzene	2.8 ca	12 (M) ca	340 ca
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98828	Isopropyl benzene	0.60 (M) ca	3.8 (M) ca	81 ca
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1634044	Methyl-tert-butyl ether (MTBE)	250 ca	74 (M) ca	3,300 ca
75092	Methylene chloride	79 (SE) st	130 nc	21,000 nc
91576	2-Methylnaphthalene	66 nc	1,700 nc	350 nc
91203	Naphthalene	4.2 (M) ca	67 (M) ca	25 ca
103651	n-Propylbenzene	43 (SE) dev	1,800 (SE) dev	33,000 (SE) dev
100425	Styrene	33 ca	150 ca	1,500 ca
630206	1,1,1,2-Tetrachloroethane	3.1 ca	3.2 (M) ca	110 ca
79345	1,1,2,2-Tetrachloroethane	2.4 ca	2.7 (M) ca	15 ca
127184	Tetrachloroethylene	1.5 (SE) st	6.2 (M) (SE) st	1,400 (SE) st
108883	Toluene	300 (SE) st	3,700 (SE) nc	1.7E+05 (SE) nc
71556	1,1,1-Trichloroethane	180 (SE) st	450 (SE) st	1.7E+05 (SE) st
79005	1,1,2-Trichloroethane	0.47 (M) nc	0.37 (M) nc	7.0 nc
79016	Trichloroethylene	7.3E-02 (M) (SE) dev	0.33 (M) (SE) dev	67 (SE) dev
75694	Trichlorofluoromethane	22 nc	19 (M) nc	15,000 nc
540841	2,2,4-Trimethyl pentane	160 (TMB) nc	130 (M) (TMB) nc	1.2E+05 (TMB) nc
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**Soil gas site-specific criteria are applicable for all depths.

- Acceptable Air Values (AAV) endpoint basis used for site-specific criterion: (**ca**) = Carcinogenetic; (**nc**) = Non-Carcinogenetic; (**dev**) = Developmental; (**mut**) = Mutagenic cancer; (**st**) = Short-term (i.e., less than chronic exposure): Agency for Toxic Substances and Disease Registry Inhalation Minimum Risk Level for Acute Inhalation or Intermediate Inhalation exposure durations; U.S. Environmental Protection Agency Integrated Risk Information System Reference Concentration for short-term exposure; or Air Quality Division Acute Initial Threshold Screening Level.
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

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INTEROFFICE COMMUNICATION

TO: Aaron Berndt, Project Manager, Permit and Corrective Action Unit
Office of Waste Management & Radiological Protection Division

FROM: Brian Jeffs, Senior Geologist, Hydrogeology Unit
Geological Services Section, Remediation and Redevelopment Division

DATE: October 17, 2018

SUBJECT: Hayes Lemmerz, Oakland County, Site ID #: N/A
Vapor Well Installation, GSS Job #688

The Department of Environmental Quality (DEQ), Office of Waste Management & Radiological Protection Division's (OWMRP's), Radioactive Materials Unit (RMU) requested the Remediation and Redevelopment Division's (RRD's), Geological Services Section (GSS) to install vapor wells at the subject site. The objective was to install vapor wells along Pinecrest Drive adjacent to the Hayes Lemmerz RCRA site. GSS installed the vapor wells on August 29, 2018. Staff completed the vapor sampling on August 31, 2018. GSS received the final laboratory results on September 5, 2018.

The site is located along Pinecrest Drive, in Ferndale, Section 33, T1N-R11E, Ferndale Township, Oakland County, Michigan. The area is across from a RCRA site with residents nearby.

The GSS installed 6 soil vapor wells (18VP-1 through 18VP-6) to a depth of between 5 and 10 feet below ground level (bgl). Vapor wells 18VP-1 through 18VP-3 were screened at 5 feet bgl, 18VP-4 was screened at 7 feet bgl, 18VP-5 was screened at 5 and 9 feet bgl, and 18VP-6 was screened at 5 and 10 feet bgl. Locations of sample points were determined by RMU staff (Fig 1) (Appendix A).

On August 31, 2018, GSS collected vapor samples on site. The vapor samples were analyzed by the DEQ Laboratory (in Lansing) for volatile organic compounds (VOCs). Laboratory results show VOCs were detected in all vapor well points. The number of compounds detected at each interval varied between 9 and 14. All vapor well locations had Tetrachloroethylene (PCE) except 18VP-2 5'. PCE levels ranged from a low of 1.7 parts per billion (ppb) (18VP-5 5') to a high of 26 ppb (18VP-5 9'). A high of 400 ppb Trichloroethylene (TCE) was found in 18VP-1 5'. 18VP-3 5' had PCE at 100 ppb. The remaining vapor wells were non-detect for TCE (Table 1) (Appendix B).

Site geology generally consisted of a brown sand to sandy loam. All equipment was cleaned and decontaminated before each use.

Staff mapped the locations of the vapor well locations using a global positioning system (GPS) (Table 2).

If you have any questions, contact me at 517-242-9086.

Attachments

cc: Burrell P. Shirey, DEQ

Brian Jeffs

N
W E
S

◎ Vapor Well locations

DATUM - NAD83
PROJECTION: MICHIGAN GEOREF
AERIAL PHOTO SOURCE: Public Imagery
AERIAL PHOTO DATE: 2013

0 5 10 20 Meters

0 20 40 80 Feet

1 inch = 75 feet

Hayes Lemmerz

Oakland Co. T1N-R11E-Sec 33

GEOLOGIST
Brian G. Jeffs
MS. CPG.

Remediation & Redevelopment Division
Geological Services Unit

CREATION DATE
August 16th, 2018

FIGURE 1

Michigan Department of Environmental Quality Analytical Testing Report

Table #1
(Page 1 of 1)

Work Order: 1808419
Report Date: 9/5/2018 3:16:23 PM
Client MDEQ-RRD-LANSING
Attention Aaron Berndt
Project Name: HAYES LEMMERZ
Project Number HWVI

Note: This is not the original data. Please refer to PDF / Hardcopy report

General Method	Analyte	Units	RDL								
LAB ID				1808419-01	1808419-02	1808419-03	1808419-04	1808419-05	1808419-06	1808419-07	1808419-08
CLIENT ID				18VP-1 5'	18VP-2 5'	18VP-3 5'	18VP-4 7'	18VP-5 5'	18VP-6 5'	18VP-5 9'	18VP-6 10'
DATE SAMPLED				31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18
DATE RECEIVED				31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18
MATRIX				Air	Air	Air	Air	Air	Air	Air	Air
Organics-Volatiles	1,1,1-Trichloroethane	ug/m3	1 4	**1.4**	<1.4	**17**	<1.4	<1 4	<1.4	<1 4	<1 4
Organics-Volatiles	1,1,2,2-Tetrachloroethane	ug/m3	1 7	<1 7	<1.7	<1.7	<1 7	<1 7	<1.7	<1 7	<1 7
Organics-Volatiles	1,1,2-Trichloroethane	ug/m3	1.4	<1 4	<1.4	<1 4	<1.4	<1.4	<1 4	<1 4	<1.4
Organics-Volatiles	1,1-Dichloroethane	ug/m3	1	<1	<1	<1	<1	<1	<1	<1	<1
Organics-Volatiles	1,1-Dichloroethylene	ug/m3	0.99	<0.99	<0.99	<0 99	<0 99	<0.99	<0.99	<0 99	<0.99
Organics-Volatiles	1,2,4-Trichlorobenzene	ug/m3	1.8	<1 8	<1.8	<1 8	<1.8	<1.8	<1 8	<1 8	<1.8
Organics-Volatiles	1,2,4-Trimethylbenzene	ug/m3	1 2	**2.1**	**2.9**	**2.5**	**2.7**	**3.5**	**4.6**	**4.5**	**5.5**
Organics-Volatiles	1,2-Dibromoethane	ug/m3	1 9	<1 9	<1.9	<1 9	<1.9	<1 9	<1.9	<1 9	<1 9
Organics-Volatiles	1,2-Dichlorobenzene	ug/m3	1.5	<1 5	**1.6**	<1 5	**2.3**	**1.9**	**2.3**	<1 5	<1.5
Organics-Volatiles	1,2-Dichloroethane	ug/m3	1	<1	<1	<1	<1	<1	<1	<1	<1
Organics-Volatiles	1,2-Dichloropropane	ug/m3	1 2	<1 2	<1.2	<1.2	<1 2	<1 2	<1.2	<1 2	<1 2
Organics-Volatiles	1,3,5-Trimethylbenzene	ug/m3	1 2	<1.2	<1.2	<1.2	<1 2	<1 2	<1.2	**1.5**	**2**
Organics-Volatiles	1,3-Butadiene	ug/m3	0.55	<0.55	<0 55	<0.55	<0.55	<0 55	<0 55	<0.55	<0 55
Organics-Volatiles	1,3-Dichlorobenzene	ug/m3	1 5	<1 5	<1.5	<1.5	<1 5	<1 5	<1.5	<1 5	<1.5
Organics-Volatiles	1,4-Dichlorobenzene	ug/m3	1 5	<1.5	<1 5	<1 5	<1 5	<1 5	<1.5	<1.5	<1.5
Organics-Volatiles	2,2,4-Trimethylpentane	ug/m3	1 2	<1.2	**41**	<1 2	<1.2	<1 2	<1 2	<1.2	<1.2
Organics-Volatiles	2-Butanone (MEK)	ug/m3	14	<14	<14	<14	<14	<14	<14	<14	<14
Organics-Volatiles	4-Methyl-2-pentanone (MIBK)	ug/m3	3 7	<3 7	<3 7	<3 7	<3 7	<3 7	<3 7	<3.7	<3.7
Organics-Volatiles	Acetonitrile	ug/m3	1 5	<1 5	<1.5	<1 5	<1 5	<1.5	<1 5	<1 5	<1.5
Organics-Volatiles	Acrylonitrile	ug/m3	0.97	<0.97	<0 97	<0.97	<0.97	<0 97	<0.97	<0.97	<0 97
Organics-Volatiles	Benzene	ug/m3	0 8	**0.85**	**31**	**1.1**	<0.80	**2.2**	**1**	**13**	**9.5**
Organics-Volatiles	Bromodichloromethane	ug/m3	1 7	<1.7	<1.7	<1 7	<1.7	<1 7	<1 7	<1.7	<1.7
Organics-Volatiles	Bromoform	ug/m3	2 6	<2 6	<2.6	<2 6	<2.6	<2 6	<2 6	<2.6	<2.6
Organics-Volatiles	Bromomethane	ug/m3	0 97	<0 97	<0.97	<0 97	<0.97	<0.97	<0.97	<0.97	<0 97
Organics-Volatiles	Carbon tetrachloride	ug/m3	1 6	<1.6	<1.6	<1 6	<1.6	<1 6	<1 6	<1.6	<1.6
Organics-Volatiles	Chlorobenzene	ug/m3	1 1	<1 1	<1 1	<1.1	<1 1	<1 1	<1.1	**13**	**11**
Organics-Volatiles	Chloroethane	ug/m3	0 66	<0.66	<0 66	<0.66	<0 66	<0.66	<0.66	<0 66	<0 66
Organics-Volatiles	Chloroform	ug/m3	1 2	**2**	<1 2	**2.3**	<1.2	**1.3**	**9.9**	<1 2	<1.2
Organics-Volatiles	Chloromethane	ug/m3	0 51	<0.51	<0 51	<0.51	<0 51	**24**	**1.4**	**0.74**	**0.59**
Organics-Volatiles	cis-1,2-Dichloroethylene	ug/m3	0 99	**2.2**	<0 99	**2.5**	<0 99	<0 99	<0.99	<0 99	<0 99
Organics-Volatiles	cis-1,3-Dichloropropylene	ug/m3	1.1	<1.1	<1 1	<1.1	<1 1	<1 1	<1.1	<1 1	<1.1
Organics-Volatiles	Dibromochloromethane	ug/m3	2.1	<2.1	<2 1	<2.1	<2 1	<2.1	<2 1	<2 1	<2.1
Organics-Volatiles	Dichlorodifluoromethane	ug/m3	1.2	**1.8**	**1.8**	**2**	**1.4**	**1.4**	**1.6**	**1.4**	**1.5**
Organics-Volatiles	Ethylbenzene	ug/m3	1.1	<1 1	**12**	**1.7**	**1.6**	**2**	**1.9**	**7.5**	**6.8**
Organics-Volatiles	Hexane	ug/m3	3 2	<3 2	**15**	<3.2	<3 2	<3 2	<3.2	**19**	<3 2
Organics-Volatiles	m & p - Xylene	ug/m3	1 1	**3.1**	**35**	**7**	**6.4**	**8.2**	**7.2**	**5.9**	**10**
Organics-Volatiles	Methylene chloride	ug/m3	1	<1	<1	<1	<1	<1	<1	<1	<1
Organics-Volatiles	Methyltertiarybutylether	ug/m3	1.6	<1 6	<1.6	<1 6	<1 6	<1.6	<1 6	<1 6	<1.6
Organics-Volatiles	o-Xylene	ug/m3	1.1	**2.1**	**14**	**3.5**	**3.3**	**4.1**	**3.9**	**8.7**	**11**
Organics-Volatiles	Styrene	ug/m3	1.1	<1 1	<1.1	<1 1	<1 1	<1.1	<1.1	**30**	**27**
Organics-Volatiles	Tetrachloroethylene	ug/m3	1.7	**2.3**	<1.7	**6.1**	**3**	**1.7**	**3.7**	**26**	**3.2**
Organics-Volatiles	Toluene	ug/m3	0.94	**2.9**	**170**	**4**	**6.6**	**7.1**	**8.6**	**9.1**	**11**
Organics-Volatiles	trans-1,2-Dichloroethylene	ug/m3	0 99	**1**	<0 99	<0.99	<0 99	<0 99	<0.99	<0 99	<0 99
Organics-Volatiles	trans-1,3-Dichloropropylene	ug/m3	1.1	<1.1	<1.1	<1 1	<1.1	<1.1	<1.1	<1.1	<1.1
Organics-Volatiles	Trichloroethylene	ug/m3	1.3	**400**	<1.3	**180**	<1.3	<1.3	<1 3	<1.3	<1.3
Organics-Volatiles	Trichlorofluoromethane	ug/m3	1.4	**1.5**	<1 4	<1 4	**1.6**	**1.8**	**2**	**2.1**	**2.4**
Organics-Volatiles	Vinyl chloride	ug/m3	0.64	**0.92**	<0.64	<0 64	<0 64	<0.64	<0 64	<0 64	<0.64

GPS Data

Hayes Lemmerz,
Oakland County

Table #2

Latitude	Longitude	Northing	Easting	Title	Max_PDOP	Corr_Type	GPS_Date	Std_Dev
42.449011685	-83.147256861	214974.579	734441.805	18VP 1 5'	6.4	Postprocessed Carrier Float	8/30/2018	0.443124
42.448741218	-83.147434235	214944.064	734428.249	18VP 2 5'	4.1	Postprocessed Carrier Float	8/30/2018	0.670941
42.448455483	-83.147241877	214912.891	734445.141	18VP 3 5'	6.6	Postprocessed Carrier Float	8/30/2018	0.470439
42.447973370	-83.147409653	214858.913	734433.175	18VP 4 7'	3.6	Postprocessed Carrier Float	8/30/2018	0.273640
42.447608518	-83.147187369	214819.043	734452.826	18VP 5 5' 9'	6.7	Postprocessed Carrier Float	8/30/2018	0.241528
42.447374225	-83.147156837	214793.125	734456.222	18VP 6 5' 10'	2.2	Postprocessed Carrier Float	8/30/2018	0.191650

APPENDIX A

Hayes Lemmerz, Oakland County
Site ID #: N/A

DEQ Vapor Well Logs

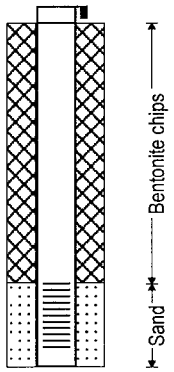
BORING/WELL: 18VP-1 5'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: East side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B.G Jeffs, MS. CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 9'
MERA#:

WELL CONSTRUCTION	LITHOLOGIC LOG	DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS	PID ppb (1 – 100)
		Grd.	0				
		SAND Brown sand.					
		SAND Brown sand, saturated about 8'.		Vapor	G	14 compounds detected. PCE-2.3 ppb, TCE-400 ppb	
			5				
		E.O.B.	10				

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42.449011685
LONGITUDE: -83.147256861
DATUM:
NORTHING: 214974.579
EASTING: 734441.805

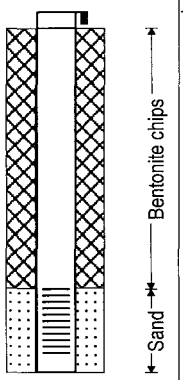
BORING/WELL: 18VP-2 5'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: West side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B.G Jeffs, MS. CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 9'
MERA#:

WELL CONSTRUCTION	LITHOLOGIC LOG	DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS	PID ppb (1 – 100)
		Grd.	0				
		SAND Brown sand, saturated about 8.5'.		Vapor	G	10 compounds detected. No PCE or TCE detected.	
		E.O.B.	5 10				

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42 448741218
LONGITUDE: -83 147434235
DATUM:
NORTHING: 214944.064
EASTING: 734428.249

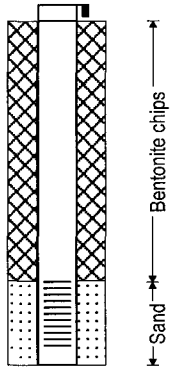
BORING/WELL: 18VP-3-5'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: East side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B G. Jeffs, MS. CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 9'
MERA#:

WELL CONSTRUCTION	LITHOLOGIC LOG	DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS	PID ppb (1 – 100)
		Grd. **SAND** Brown sand, saturated about 7.5'.	0	Vapor	G	12 compounds detected. PCE-6 1 ppb, TCE-180 ppb	
		E.O.B.	5				
			10				

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42.448455483
LONGITUDE: -83.147241877
DATUM:
NORTHING: 214912.891
EASTING: 734445.141

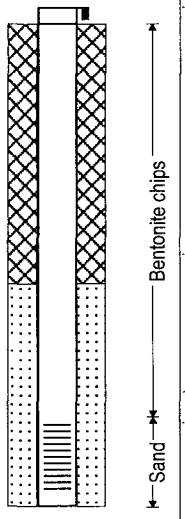
BORING/WELL: 18VP-4 -7'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: West side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B G. Jeffs, MS. CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 13'
MERA#:

WELL CONSTRUCTION	LITHOLOGIC LOG	DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS	PID ppb (1 – 100)
		Grd.	0				
		SAND Brown sand, saturated about 10.6".	5	Vapor	G	9 compounds detected. PCE-3 ppb, TCE-ND	
		E O.B.	10				

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42 447973370
LONGITUDE: -83 147409653
DATUM:
NORTHING: 214858 913
EASTING: 734433 175

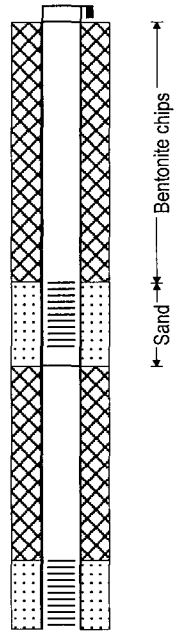
BORING/WELL: 18VP-5 -5' 10'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: East side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B.G. Jeffs, MS CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 13'
MERA#:



DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS
Grd.	0			
SAND Brown sand, saturated about 11.8'.				
	5	Vapor	G	12 compounds detected. PCE-1.7 ppb, TCE-ND
	10	Vapor	G	14 compounds detected. PCE-26 ppb, TCE-ND
E.O.B.				

PID ppb (1 – 100)

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42.447608518
LONGITUDE: -83.147187369
DATUM:
NORTHING: 214819 043
EASTING: 734452 826

BORING/WELL: 18VP-6-5'-10'

SITE: Hayes Lemmerz

BOREHOLE LOG

COUNTY: Oakland
TOWNSHIP: Ferndale
TOWN: 1N
RANGE: 11E
SECTION: 33
LOCATION DESCRIPTION: East side of Pinecrest Dr.

DATE: 8/31/18
DRILLER: W/ Rogers
GEOLOGIST: B.G. Jeffs, MS. CPG
DRILL METHOD: Geoprobe
TOTAL DEPTH: 13'
MERA#:

WELL CONSTRUCTION	LITHOLOGIC LOG	DESCRIPTION	DEPTH	SAMPLE ID	SAMPLE TYPE	FIELD SCREENING RESULTS	PID ppb (1 – 100)
Bentonite chips; Sand; Bentonite chips; Sand		Grd **SAND** Tan sand, saturated about 11.8'	0 5 10	Vapor Vapor	G G	12 compounds detected. PCE-3.7 ppb, TCE-ND 13 compounds detected. PCE-3.2 ppb, TCE-ND	
		E.O.B.					

VERTICAL DATUM:
GRD. ELEVATION:
T.O.C.:
S.W.L.:
CASING:
SCREEN:
WELL DEPTH:
COMPLETION NOTES: Bentonite chipped hole

LATITUDE: 42.447374225
LONGITUDE: -83.147156837
DATUM:
NORTHING: 214793.125
EASTING: 734456 222

APPENDIX B

Hayes Lemmerz, Oakland County
Site ID #: N/A

DEQ Laboratory Results

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

05 September 2018

Work Order: 1808419

Price: $2,880.00

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

RE: HAYES LEMMERZ

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-LANSING	Project: HAYES LEMMERZ	
525 W. Allegan Street	Site Code: HWVI	**Reported:**
Lansing MI, 48909	Project Manager. Aaron Berndt	09/05/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
18VP-1 5'	1808419-01	Air	08/31/2018	08/31/2018	
18VP-2 5'	1808419-02	Air	08/31/2018	08/31/2018	
18VP-3 5'	1808419-03	Air	08/31/2018	08/31/2018	
18VP-4 7'	1808419-04	Air	08/31/2018	08/31/2018	
18VP-5 5'	1808419-05	Air	08/31/2018	08/31/2018	
18VP-6 5'	1808419-06	Air	08/31/2018	08/31/2018	
18VP-5 9'	1808419-07	Air	08/31/2018	08/31/2018	
18VP-6 10'	1808419-08	Air	08/31/2018	08/31/2018	

Notes and Definitions

Y11	Unidentified peaks present in sample.
T	Reported value is less than the reporting limit (RL) Result is estimated.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-1 5'

Lab ID: 1808419-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	**1,1,1-Trichloroethane**	**1.4**	1 6	ug/m3	1	09/05/18	B8I0510	TO-15	T
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/05/18	B8I0510	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1 6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/05/18	B8I0510	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**2.1**	1 5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/05/18	B8I0510	TO-15	
95-50-1	1,2-Dichlorobenzene	ND	1 8	ug/m3	1	09/05/18	B8I0510	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-99-0	1,3-Butadiene	ND	0 66	ug/m3	1	09/05/18	B8I0510	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/05/18	B8I0510	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/05/18	B8I0510	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
71-43-2	**Benzene**	**0.85**	0.95	ug/m3	1	09/05/18	B8I0510	TO-15	T
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/05/18	B8I0510	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/05/18	B8I0510	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/05/18	B8I0510	TO-15	
67-66-3	**Chloroform**	**2.0**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
74-87-3	Chloromethane	ND	0 62	ug/m3	1	09/05/18	B8I0510	TO-15	
156-59-2	**cis-1,2-Dichloroethylene**	**2.2**	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/05/18	B8I0510	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.8**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
100-41-4	Ethylbenzene	ND	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/05/18	B8I0510	TO-15	
1330-20-7	**m & p - Xylene**	**3.1**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/05/18	B8I0510	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
95-47-6	**o-Xylene**	**2.1**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	

Lab Work Order # 1808419

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-1 5'
Lab ID: 1808419-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	**Tetrachloroethylene**	**2.3**	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
108-88-3	**Toluene**	**2.9**	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
156-60-5	**trans-1,2-Dichloroethylene**	**1.0**	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	T
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
79-01-6	**Trichloroethylene**	**400**	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-69-4	**Trichlorofluoromethane**	**1.5**	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	T
75-01-4	**Vinyl chloride**	**0.92**	0.76	ug/m3	1	09/05/18	B8I0510	TO-15	

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ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-2 5'
Lab ID: 1808419-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/05/18	B8I0510	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/05/18	B8I0510	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**2.9**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/05/18	B8I0510	TO-15	
95-50-1	**1,2-Dichlorobenzene**	**1.6**	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	T
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/05/18	B8I0510	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
540-84-1	**2,2,4-Trimethylpentane**	**41**	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/05/18	B8I0510	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/05/18	B8I0510	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
71-43-2	**Benzene**	**31**	0.95	ug/m3	1	09/05/18	B8I0510	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/05/18	B8I0510	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/05/18	B8I0510	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/05/18	B8I0510	TO-15	
67-66-3	Chloroform	ND	1 5	ug/m3	1	09/05/18	B8I0510	TO-15	
74-87-3	Chloromethane	ND	0.62	ug/m3	1	09/05/18	B8I0510	TO-15	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/05/18	B8I0510	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.8**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
100-41-4	**Ethylbenzene**	**12**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
110-54-3	**Hexane**	**15**	3.5	ug/m3	1	09/05/18	B8I0510	TO-15	
1330-20-7	**m & p - Xylene**	**35**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/05/18	B8I0510	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
95-47-6	**o-Xylene**	**14**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	

Lab Work Order # 1808419

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-2 5'
Lab ID: 1808419-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	Tetrachloroethylene	ND	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
108-88-3	**Toluene**	**170**	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/05/18	B8I0510	TO-15	

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

Client ID: 18VP-3 5'

Lab ID: 1808419-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	**1,1,1-Trichloroethane**	**17**	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/05/18	B8I0510	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/05/18	B8I0510	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**2.5**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/05/18	B8I0510	TO-15	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
78-87-5	1,2-Dichloropropane	ND	1 4	ug/m3	1	09/05/18	B8I0510	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/05/18	B8I0510	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/05/18	B8I0510	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/05/18	B8I0510	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
71-43-2	**Benzene**	**1.1**	0.95	ug/m3	1	09/05/18	B8I0510	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
75-25-2	Bromoform	ND	3 1	ug/m3	1	09/05/18	B8I0510	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/05/18	B8I0510	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/05/18	B8I0510	TO-15	
67-66-3	**Chloroform**	**2.3**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
74-87-3	Chloromethane	ND	0.62	ug/m3	1	09/05/18	B8I0510	TO-15	
156-59-2	**cis-1,2-Dichloroethylene**	**2.5**	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/05/18	B8I0510	TO-15	
75-71-8	**Dichlorodifluoromethane**	**2.0**	1.5	ug/m3	1	09/05/18	B8I0510	TO-15	
100-41-4	**Ethylbenzene**	**1.7**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/05/18	B8I0510	TO-15	
1330-20-7	**m & p - Xylene**	**7.0**	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/05/18	B8I0510	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/05/18	B8I0510	TO-15	
95-47-6	**o-Xylene**	**3.5**	1 3	ug/m3	1	09/05/18	B8I0510	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/05/18	B8I0510	TO-15	

Lab Work Order # 1808419

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-3 5'

Lab ID: 1808419-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	**Tetrachloroethylene**	**6.1**	2.0	ug/m3	1	09/05/18	B8I0510	TO-15	
108-88-3	**Toluene**	**4.0**	1.1	ug/m3	1	09/05/18	B8I0510	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/05/18	B8I0510	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/05/18	B8I0510	TO-15	
79-01-6	**Trichloroethylene**	**180**	1.6	ug/m3	1	09/05/18	B8I0510	TO-15	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/m3	1	09/05/18	B8I0510	TO-15	
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/05/18	B8I0510	TO-15	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: 18VP-4 7'

Lab ID: 1808419-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/04/18	B8I0508	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/04/18	B8I0508	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**2.7**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/04/18	B8I0508	TO-15	
95-50-1	**1,2-Dichlorobenzene**	**2.3**	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/04/18	B8I0508	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/04/18	B8I0508	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/04/18	B8I0508	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
71-43-2	Benzene	ND	0.95	ug/m3	1	09/04/18	B8I0508	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/04/18	B8I0508	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/04/18	B8I0508	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/04/18	B8I0508	TO-15	
67-66-3	Chloroform	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
74-87-3	Chloromethane	ND	0.62	ug/m3	1	09/04/18	B8I0508	TO-15	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/04/18	B8I0508	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.4**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	T
100-41-4	**Ethylbenzene**	**1.6**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/04/18	B8I0508	TO-15	
1330-20-7	**m & p - Xylene**	**6.4**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/04/18	B8I0508	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
95-47-6	**o-Xylene**	**3.3**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-4 7'

Lab ID: 1808419-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	**Tetrachloroethylene**	**3.0**	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
108-88-3	**Toluene**	**6.6**	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-69-4	**Trichlorofluoromethane**	**1.6**	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	T
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/04/18	B8I0508	TO-15	

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ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-5 5'

Lab ID: 1808419-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/04/18	B8I0508	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/04/18	B8I0508	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**3.5**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/04/18	B8I0508	TO-15	
95-50-1	**1,2-Dichlorobenzene**	**1.9**	1 8	ug/m3	1	09/04/18	B8I0508	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
78-87-5	1,2-Dichloropropane	ND	1 4	ug/m3	1	09/04/18	B8I0508	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/04/18	B8I0508	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/04/18	B8I0508	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/04/18	B8I0508	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
107-13-1	Acrylonitrile	ND	1 1	ug/m3	1	09/04/18	B8I0508	TO-15	
71-43-2	**Benzene**	**2.2**	0.95	ug/m3	1	09/04/18	B8I0508	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/04/18	B8I0508	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
56-23-5	Carbon tetrachloride	ND	1 9	ug/m3	1	09/04/18	B8I0508	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/04/18	B8I0508	TO-15	
67-66-3	**Chloroform**	**1.3**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	T
74-87-3	**Chloromethane**	**24**	0 62	ug/m3	1	09/04/18	B8I0508	TO-15	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1 4	ug/m3	1	09/04/18	B8I0508	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/04/18	B8I0508	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.4**	1 5	ug/m3	1	09/04/18	B8I0508	TO-15	T
100-41-4	**Ethylbenzene**	**2.0**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/04/18	B8I0508	TO-15	
1330-20-7	**m & p - Xylene**	**8.2**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
75-09-2	Methylene chloride	ND	1 0	ug/m3	1	09/04/18	B8I0508	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
95-47-6	**o-Xylene**	**4.1**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	

Lab Work Order # 1808419

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-5 5'

Lab ID: 1808419-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	**Tetrachloroethylene**	**1.7**	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	T
108-88-3	**Toluene**	**7.1**	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-69-4	**Trichlorofluoromethane**	**1.8**	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/04/18	B8I0508	TO-15	

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ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-6 5'
Lab ID: 1808419-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/04/18	B8I0508	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/04/18	B8I0508	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**4.6**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/04/18	B8I0508	TO-15	
95-50-1	**1,2-Dichlorobenzene**	**2.3**	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/04/18	B8I0508	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/04/18	B8I0508	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/04/18	B8I0508	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
71-43-2	**Benzene**	**1.0**	0.95	ug/m3	1	09/04/18	B8I0508	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/04/18	B8I0508	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/04/18	B8I0508	TO-15	
108-90-7	Chlorobenzene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/04/18	B8I0508	TO-15	
67-66-3	**Chloroform**	**9.9**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
74-87-3	**Chloromethane**	**1.4**	0.62	ug/m3	1	09/04/18	B8I0508	TO-15	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/04/18	B8I0508	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.6**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
100-41-4	**Ethylbenzene**	**1.9**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/04/18	B8I0508	TO-15	
1330-20-7	**m & p - Xylene**	**7.2**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/04/18	B8I0508	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
95-47-6	**o-Xylene**	**3.9**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
100-42-5	Styrene	ND	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-6 5'
Lab ID: 1808419-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
127-18-4	**Tetrachloroethylene**	**3.7**	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
108-88-3	**Toluene**	**8.6**	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-69-4	**Trichlorofluoromethane**	**2.0**	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/04/18	B8I0508	TO-15	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-5 9'
Lab ID: 1808419-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/04/18	B8I0508	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1 6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/04/18	B8I0508	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**4.5**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/04/18	B8I0508	TO-15	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
108-67-8	**1,3,5-Trimethylbenzene**	**1.5**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/04/18	B8I0508	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/04/18	B8I0508	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/04/18	B8I0508	TO-15	
75-05-8	Acetonitrile	ND	1 7	ug/m3	1	09/04/18	B8I0508	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
71-43-2	**Benzene**	**13**	0 95	ug/m3	1	09/04/18	B8I0508	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/04/18	B8I0508	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/04/18	B8I0508	TO-15	
108-90-7	**Chlorobenzene**	**13**	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/04/18	B8I0508	TO-15	
67-66-3	Chloroform	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
74-87-3	**Chloromethane**	**0.74**	0.62	ug/m3	1	09/04/18	B8I0508	TO-15	
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/04/18	B8I0508	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.4**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	T
100-41-4	**Ethylbenzene**	**7.5**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
110-54-3	**Hexane**	**19**	3.5	ug/m3	1	09/04/18	B8I0508	TO-15	
1330-20-7	**m & p - Xylene**	**5.9**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
75-09-2	Methylene chloride	ND	1 0	ug/m3	1	09/04/18	B8I0508	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
95-47-6	**o-Xylene**	**8.7**	1 3	ug/m3	1	09/04/18	B8I0508	TO-15	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: 18VP-5 9'

Lab ID: 1808419-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
100-42-5	**Styrene**	**30**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
127-18-4	**Tetrachloroethylene**	**26**	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
108-88-3	**Toluene**	**9.1**	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-69-4	**Trichlorofluoromethane**	**2.1**	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
75-01-4	Vinyl chloride	ND	0 76	ug/m3	1	09/04/18	B8I0508	TO-15	

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Client ID: 18VP-6 10'

Lab ID: 1808419-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/m3	1	09/04/18	B8I0508	TO-15	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-34-3	1,1-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
75-35-4	1,1-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ug/m3	1	09/04/18	B8I0508	TO-15	
95-63-6	**1,2,4-Trimethylbenzene**	**5.5**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/m3	1	09/04/18	B8I0508	TO-15	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
107-06-2	1,2-Dichloroethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
78-87-5	1,2-Dichloropropane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
108-67-8	**1,3,5-Trimethylbenzene**	**2.0**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
106-99-0	1,3-Butadiene	ND	0.66	ug/m3	1	09/04/18	B8I0508	TO-15	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
540-84-1	2,2,4-Trimethylpentane	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
78-93-3	2-Butanone (MEK)	ND	15	ug/m3	1	09/04/18	B8I0508	TO-15	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	ug/m3	1	09/04/18	B8I0508	TO-15	
75-05-8	Acetonitrile	ND	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
107-13-1	Acrylonitrile	ND	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
71-43-2	**Benzene**	**9.5**	0.95	ug/m3	1	09/04/18	B8I0508	TO-15	
75-27-4	Bromodichloromethane	ND	2.0	ug/m3	1	09/04/18	B8I0508	TO-15	
75-25-2	Bromoform	ND	3.1	ug/m3	1	09/04/18	B8I0508	TO-15	
74-83-9	Bromomethane	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
56-23-5	Carbon tetrachloride	ND	1.9	ug/m3	1	09/04/18	B8I0508	TO-15	
108-90-7	**Chlorobenzene**	**11**	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
75-00-3	Chloroethane	ND	0.79	ug/m3	1	09/04/18	B8I0508	TO-15	
67-66-3	Chloroform	ND	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
74-87-3	**Chloromethane**	**0.59**	0.62	ug/m3	1	09/04/18	B8I0508	TO-15	T
156-59-2	cis-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
124-48-1	Dibromochloromethane	ND	2.5	ug/m3	1	09/04/18	B8I0508	TO-15	
75-71-8	**Dichlorodifluoromethane**	**1.5**	1.5	ug/m3	1	09/04/18	B8I0508	TO-15	
100-41-4	**Ethylbenzene**	**6.8**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
110-54-3	Hexane	ND	3.5	ug/m3	1	09/04/18	B8I0508	TO-15	
1330-20-7	**m & p - Xylene**	**10**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	
75-09-2	Methylene chloride	ND	1.0	ug/m3	1	09/04/18	B8I0508	TO-15	
1634-04-4	Methyltertiarybutylether	ND	1.8	ug/m3	1	09/04/18	B8I0508	TO-15	
95-47-6	**o-Xylene**	**11**	1.3	ug/m3	1	09/04/18	B8I0508	TO-15	

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108-88-3	**Toluene**	**11**	1.1	ug/m3	1	09/04/18	B8I0508	TO-15	
156-60-5	trans-1,2-Dichloroethylene	ND	1.2	ug/m3	1	09/04/18	B8I0508	TO-15	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.4	ug/m3	1	09/04/18	B8I0508	TO-15	
79-01-6	Trichloroethylene	ND	1.6	ug/m3	1	09/04/18	B8I0508	TO-15	
75-69-4	**Trichlorofluoromethane**	**2.4**	1.7	ug/m3	1	09/04/18	B8I0508	TO-15	
75-01-4	Vinyl chloride	ND	0.76	ug/m3	1	09/04/18	B8I0508	TO-15	

DEQ

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

PRIORITY

Lab Work Order Number	Project Name	Matrix
1808419	Hayes Lemmerz	AIR

Site Code/Project Number	AY: 18	CC Email 1: jeffsb@mi.gov	Project TAT Days		Sample Collector
Dept-Division-District: Waste Management	Index	CC Email 2: Shireyb@mi.gov	Project Due Date		Sample Collector Phone: 517-242-9086
State Project Manager: Aaron Berndt	PCA	CC Email 3			Contract Firm
State Project Manager Email: berndta@mi.gov	Project: HWVI	Overflow Lab Choice 1	Accept Analysis hold time codes		Contract Firm Primary Contact
State Project Manager Phone	Phase: 00	Overflow Lab Choice 2			Primary Contact Phone

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments	Regulator ID	Canister/Bottle Vac Number
1	01	18VP-1 5'	8/31/18					
2	02	18VP-2 5'						
3	03	18VP-3 5'						
4	04	18VP-4 7'						
5	05	18VP-5 5'						
6	06	18VP-6 5'						
7	07	18VP-5 9'						
8	08	18VP-6 10'						
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

Rush

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org. Brian Jeffs DEQ-RRD	Melissa Smith	8/31/18 1217
Signature:		
Print Name & Org.		
Signature:		
Print Name & Org.		
Signature:		