ARM Group LLC
Engineers and Scientists

April 25, 2024

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: 1st Quarter 2024 Groundwater and Surface Water Sampling for the Interim Measures Work Plan
Area B: Parcel B14
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown:

On behalf of Tradepoint Atlantic (TPA), ARM Group LLC (ARM) is pleased to provide the following update on the status of field work related to the Humphrey Impoundment Interim Measures (IM) Work Plan (Revision 2 dated March 29, 2022) for Parcel B14 of the TPA property located in Sparrows Point, Maryland. As part of this program, ARM has submitted multiple rounds of groundwater sampling data commencing January 28, 2022. On November 7, 2022, the Maryland Department of the Environment (MDE) and the United States Environmental Protection Agency (USEPA), approved a reduction in sampling frequency from monthly to quarterly, with the January 2023 sampling event serving as the 1st quarter 2023 sampling event. On October 30, 2023, the Agencies also approved a reduction in gauging frequency from monthly to quarterly.

1.0 B14 Groundwater Sampling – 1st Quarter 2024

There are 18 shallow baseline wells that make up the groundwater monitoring network. Between February 6 and 20, 2024, ARM gauged and sampled the following 16 shallow baseline monitoring wells (refer to **Figure 1**):

- HI10-MWS, HI11-MWS, HI12-MWS, HI13-MWS, HI14-MWS, HI15-MWS, HI16-MWS, HI17-MWS, HI18-MWS, HI19-MWS, HI21-MWS, HI22-MWS, TM04-PZM006, TM08R-PZM007, HI02R-PZM006, and HI07R-PZM005.

- HI04-PZM006 was not sampled as it was damaged during redevelopment / construction activities in April 2022. TPA will evaluate replacement of the damaged HI04-PZM006 based on groundwater concentrations to date.
- HI20R-MWS was not sampled due to observed NAPL (refer to Section 6.0).

In January 2024, replacement wells HI02R-PZM006, HI07R-PZM005, and HI20R-MWS were installed. The original wells at these locations were abandoned due to construction activities in the area. Refer to **Appendix A** for the well installation logs. The wells were developed on January 25 and 26, 2024.

The 16 shallow baseline monitoring wells were sampled for volatile organic compounds (VOCs) via USEPA Method 8260 and semivolatile organic compounds (SVOCs) via USEPA Method 8270 SIM. The results of the 1st quarter 2024 sampling event are included in **Table 1**. The laboratory reports are included in **Appendix B**. Benzene and naphthalene Project Action Limit (PAL) exceedances are included in **Figure 1**. The groundwater PALs are based on the USEPA Maximum Contaminant Level or the USEPA Regional Screening Level for tap water.

Benzene exceedances of the groundwater PAL (5 micrograms per liter, or µg/L) were observed in two baseline monitoring wells: HI19-MWS (9.1 µg/L) and TM04-PZM006 (140 µg/L). Measured benzene concentrations are consistent with historical values observed at these locations.

Naphthalene exceedances of the groundwater PAL (0.12 µg/L) were observed nine of 16 baseline monitoring wells sampled, with the maximum concentration observed in HI10-MWS (31 µg/L). Four of the nine baseline monitoring wells with naphthalene PAL exceedances are located along the Tin Mill Canal (TMC): HI10-MWS (31 µg/L), HI11-MWS (0.18 µg/L), HI14-MWS (0.16 µg/L), HI15-MWS (8.2 µg/L), and TM04-PZM006 (0.12 µg/L). Naphthalene concentrations are consistent with historical values observed at these locations except for monitoring well TM04-PZM006. Historically, the maximum naphthalene concentrations for this study area have been detected at TM04-PZM006. However, naphthalene concentrations have been fluctuating at TM04-PZM006 over the last several quarters: not detected in the 3rd quarter sampling event, 170 µg/L during the 4th quarter 2024, and 0.12 µg/L during the 1st quarter 2024. Concentrations at TM04-PZM006 will continue to be monitored for trend changes.

Benz[a]anthracene exceedances of the groundwater PAL (0.03 µg/L) were observed in 11 of the 16 monitoring wells samples, with the maximum concentration observed in HI15-MWS (0.08 µg/L). Benz[a]anthracene concentrations are consistent with historical values observed at these locations. There were also exceedances for 2-Methylnaphthalene in three wells (maximum concentration of 2.2 µg/L in HI19-MWS) and for dibenz[a,h]anthracene in two wells (maximum concentration of 0.14 µg/L in HI15-MWS).

2.0 B14 Groundwater Sampling Trends

Benzene and naphthalene historic groundwater sampling results are compiled in **Table 2**. Trend plots for benzene and naphthalene (for wells where PAL exceedances have been identified in one

or more monitoring events) are included as **Figure 2** and **Figure 3,** respectively. Overall, benzene and naphthalene concentrations in the wells do not appear to be changing as the impoundment is filled.

Monitoring well location TM04-PZM006 continues to be an area of groundwater impact. Historically, groundwater sampling results for this area are available from December 2001, July 2004, October 2017, and October 2021. The historic results for benzene and naphthalene for all monitoring wells (where available) are included in **Table 2**. A Mann-Kendall analysis of the benzene and naphthalene groundwater concentrations in TM04-PZM006 has not identified statistically significant increasing or decreasing trends for benzene but did identify a statistically significant downward trend for naphthalene. The analysis output file is included in **Appendix C**. Refer to **Figure 2** and **Figure 3** for the historic groundwater results for benzene and naphthalene, respectively. Monitoring wells were only included in the trend chart if there was one or more detectable concentration.

3.0 B24 Groundwater Sampling

On February 13, 2024, ARM also sampled two of the three shallow monitoring wells on Parcel B24: B24-002-MWS and TS03-DDP002. Monitoring well B24-001-MWS was inaccessible due to site activities. These three monitoring wells are located to the west of the impoundment and were included in the monitoring program to identify potential impact migration towards Bear Creek. Sampling at these locations is conducted on a semi-annual basis.

All monitoring wells were sampled for VOCs via USEPA Method 8260 and SVOCs by USEPA Method 8270 SIM. All results from the 1st quarter 2024 sampling event are included in **Table 3**. The laboratory reports are included in **Appendix B**. All groundwater PAL exceedances are included in **Figure 1**.

Benzene did not exceed the groundwater PAL in the two Parcel B24 sentinel monitoring wells. B24-002-MWS was the only monitoring well with minor VOC exceedances of the groundwater PALs: bromodichloromethane (13 µg/L), bromoform (5.9 µg/L), chloroform (10 µg/L), and dibromochloromethane (11 µg/L). For SVOCs, naphthalene exceeded the groundwater PAL (0.12 µg/L) in B24-002-MWS (0.25 µg/L). Groundwater concentrations at the Parcel B24 sentinel monitoring wells have remained low since sampling began in May 2022 (following well installation in April 2022).

4.0 Surface Water Sampling

Surface water samples were collected on February 8, 2024, from four locations: TMC-Outlet (end of canal), TMC-TM04 (adjacent to TM04-PZM006), TMC-Bend (from the bend in the TMC in the southeastern corner of B14, adjacent to HI15-MWS), and TMC-Rail Bridge (mid canal). All surface water samples were analyzed for VOCs via USEPA Method 8260 and SVOCs by USEPA Method 8270 SIM.

The approximate locations of the surface water samples are shown in **Figure 1**. Refer to **Table 4** for the 1st quarter 2024 surface water sampling results, to **Table 5** for the historic surface water results for benzene and naphthalene, and to **Appendix D** for the laboratory report.

For comparison purposes, the USEPA Region 4 Surface Water Screening Values (for freshwater and chronic) (Region 4 Ecological Risk Assessment Supplemental Guidance, March 2018) were included in **Table 4** for parameters with detections. Benzene and naphthalene did not exceed the freshwater screening levels (160 µg/L and 21 µg/L) ranging from 0.38 J µg/L to 0.52 µg/L respectively for benzene, and non-detect to 1.4 J µg/L for naphthalene.

5.0 Groundwater Elevations

To assess potential impacts from the IM on groundwater flow direction, TPA is conducting groundwater gauging throughout the duration of the monitoring activities. Gauging results from the 1st quarter 2024 are summarized in **Table 6**. Gauging results have been used to create groundwater elevation contour maps, included as **Figure 4**. Overall, groundwater contours indicate flow towards the TMC, with no significant changes throughout the year.

During groundwater monitoring events, each groundwater point was checked for the presence of NAPL using an oil-water interface probe. NAPL was observed in monitoring wells HI17-MWS and HI20R-MWS, as discussed below.

6.0 NAPL Observations

During groundwater gauging on April 18, 2022, approximately 0.02 ft of nonaqueous phase liquid (NAPL) was identified in HI17-MWS. MDE was notified of the NAPL detection on April 19, 2022. HI17-MWS was gauged at least weekly following this detection, with NAPL thickness ranging from the initial detection of 0.02 ft to subsequent trace amounts (not measurable on the probe). Three Enhanced Fluid Recovery (EFR) events were conducted at HI17-MWS in April and May 2022; minimal product was recovered. In July 2022, a 10-foot-long trench was advanced to groundwater within the impoundment, approximately 20 feet west of HI17-MWS. No NAPL was observed within the trench for several weeks prior to backfilling.

Since July 2022, absorbent socks have been utilized in HI17-MWS, with an absorbent sock placed into the well for one month and then removed for one month to evaluate the amount of potential NAPL recharge into the well. A summary of NAPL observations during the 1st quarter of 2024 is provided in **Table 7**. NAPL thickness has not increased at this location, remaining at a trace level, so absorbent socks will continue to be used to remove NAPL from the well.

Monitoring well HI20-MWS was abandoned in March 2023 due to anticipated development activities on Sub-Parcel B8-1. Monitoring well HI20R-MWS was installed on January 25, 2024, approximately 53 feet south of the previous well location due to construction of the Parcel B8-1 building pad; the HI20R-MWS location is within Parcel B14 / Humphrey Impoundment (refer to **Figure 5**). During well installation, a black tar-like substance was observed at several depths.

Monitoring well HI20R-MWS was developed on January 25, 2024, and no NAPL was identified. On February 20, 2024, the monitoring well was gauged before the Q1 2024 sampling event; 0.73 ft of NAPL was observed in the well. An absorbent sock was deployed in the well. However, subsequent gauging at HI20R-MWS have identified trace NAPL only; the initial NAPL observation appear to have been an erroneous measurement due to the thicker nature of the NAPL. This location will continue to be gauged, and absorbent socks deployed as needed.

Once access could be gained, monitoring well HI20R2-MWS was installed on March 20, 2024, directly adjacent to the original HI20-MWS location (refer to **Figure 5** for the location, and to **Appendix A** for the well installation log). HI20R-MWS was developed on April 10, 2024. No NAPL was identified on April 19, 2024, post development. Moving forward, HI20R2-MWS (rather than HI20R-MWS) will be sampled, as it is more representative of the Parcel B14 perimeter conditions.

7.0 Reporting

The next scheduled sampling event for the B14 monitoring wells and the surface water sampling is during the second quarter of 2024. The next sampling event for the B24 sentential wells is during the third quarter of 2024.

If you have questions regarding any information covered in this document, please feel free to contact Peter Haid at Tradepoint Atlantic: 443-649-5055.

Respectfully Submitted,
ARM Group LLC

Joshua M. Barna, P.G.
Project Geologist II

Kaye Guille, P.E., PMP
Senior Engineer

Attachments:

Figure 1: Humphrey Impoundment Groundwater Exceedances (Benzene and Naphthalene Only) – 1st Quarter 2024
Figure 2: Historic Groundwater Results for Benzene
Figure 3: Historic Groundwater Results for Naphthalene
Figure 4: Groundwater Elevation Contour Map – January 2024
Figure 5: HI20 Monitoring Well Locations

Table 1: Parcel B14 Groundwater Sampling (1st Quarter 2024)
Table 2: Parcel B14 Historic Groundwater Sampling Results
Table 3: Summary of Organics Detected in B24 Groundwater
Table 4: Parcel B14 Surface Water Sampling (1st Quarter 2024)
Table 5: Parcel B14 Historic Surface Water Sampling Results
Table 6: Parcel B14 Groundwater Elevations
Table 7: Parcel B14 NAPL Gauging Activities

Appendix A: Well Installation Logs
Appendix B: B14 Groundwater Lab Reports
Appendix C: Mann-Kendall Analysis
Appendix D: B14 Surface Water Lab Report

FIGURES

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Humphery Imoundment GW Exceedances (Benzene and Naphthalene Only) 1st Quarter 2024

April 15, 2024

Figure 1

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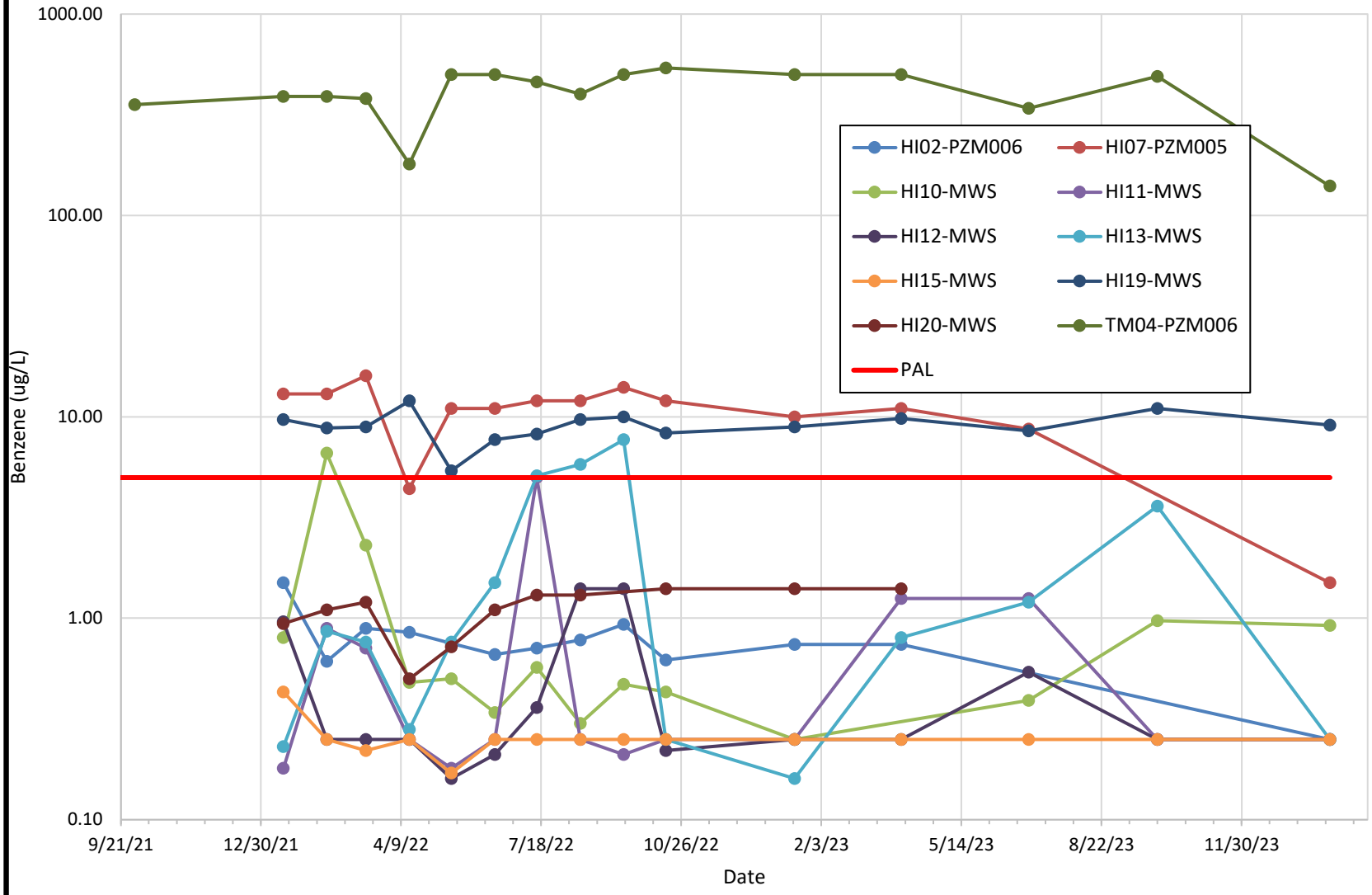
0 100 200 400
Feet

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 21010214



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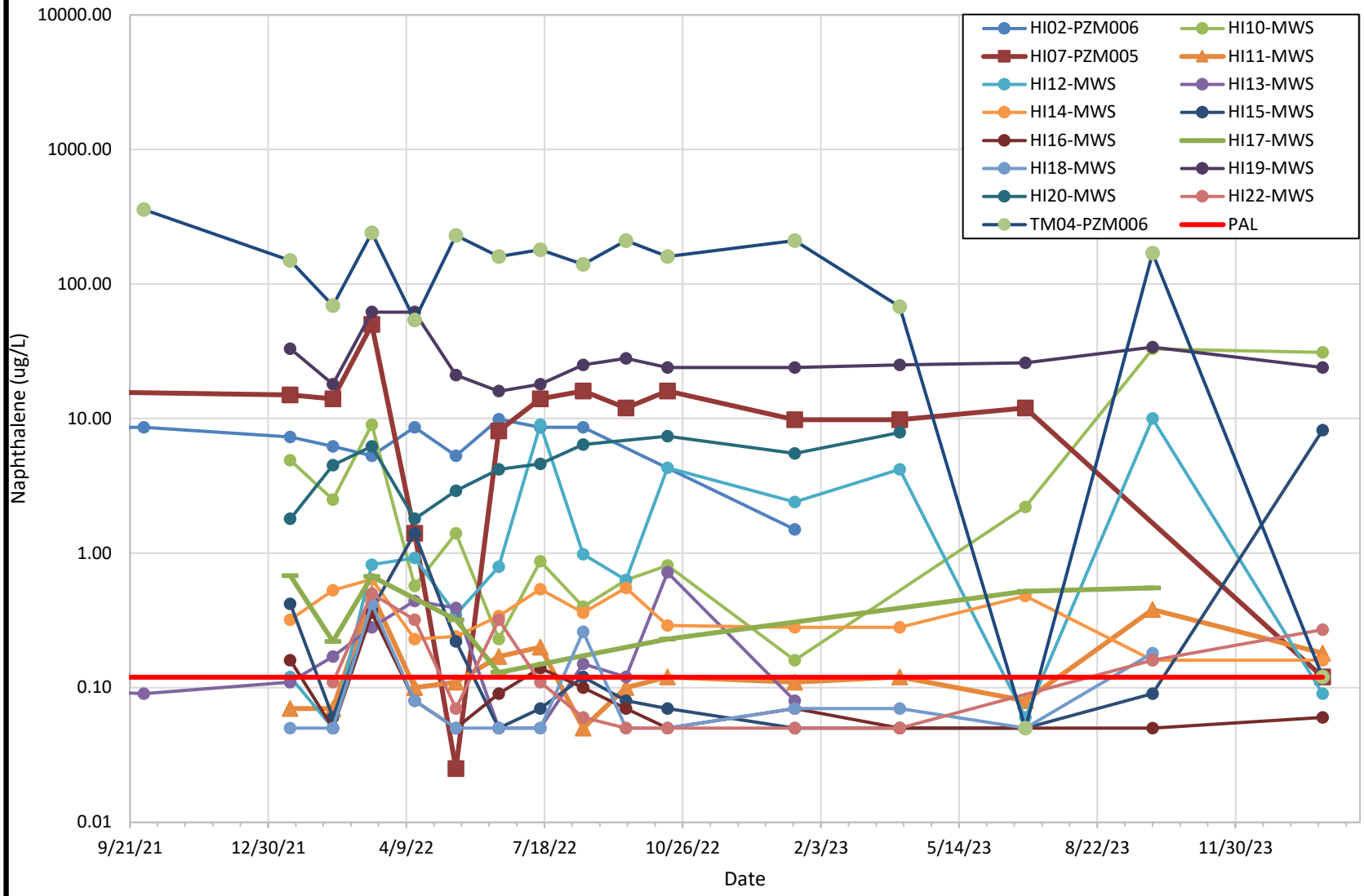
Parcel B14
Tradepoint Atlantic

Sparrows Point, Maryland

B14 Historic Groundwater Results for Benzene

April 16, 2024

Figure 2



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B14 Historic Groundwater Results for Naphthalene

April 16, 2024

Figure 3

Monitoring Well (Abandoned)

Monitoring Well

January 2024 GW Elevation (ft AMSL)

Parcel Boundary

Parcel A1

Parcel A3

Parcel A4

Parcel B6

Parcel B8

Parcel B14

Parcel B24

Parcel B16

Parcel B15

HI04-PZM006
Not Gauged

HI19-MWS
2.27

HI18-MWS
0.19

HI17-MWS
0.28

TM08R-PZM007
0.22

HI07R-PZM005
2.45

HI20R2-MWS
Not Gauged

HI20R-MWS
2.9

HI02R-PZM006
2.61

HI16-MWS
0.12

HI15-MWS
0.11

TS03-PDP002
1.2

B24-001-MWS
1.11

HI22-MWS
3.05

HI11-MWS
0.73

HI10-MWS
0.25

TM04-PZM006
0.38

HI12-MWS
3.6

HI13-MWS
0.54

HI14-MWS
0.53

B24-002-MWS
1.74

Groundwater Elevation Contour Map
January 2024

April 15, 2024

Figure
4

ARM Group LLC
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0 100 200 400
Feet

Tradepoint Atlantic

Sparrows Point

Baltimore County, MD

ARM Project 21010214

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HI20 Monitoring Well Locations

March 4, 2024

Figure 5

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Sparrows Point

Baltimore County, MD

ARM Project 21010208

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TABLES

Table 1 - Parcel B14 Groundwater Sampling (1st Quarter 2024)
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	HI02R-PZM006 2/13/2024	HI07-PZM005 2/13/2024	HI10-MWS 2/7/2024	HI11-MWS 2/8/2024	HI12-MWS 2/8/2024	HI13-MWS 2/8/2024	HI14-MWS 2/16/2024	HI15-MWS 2/6/2024	HI16-MWS 2/6/2024	HI17-MWS 2/6/2024
SVOCs												
1,1-Biphenyl	µg/L	0.83	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*
2,4-Dimethylphenol	µg/L	360	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	**2.9 J**
2-Methylnaphthalene	µg/L	36	**0.28**	**0.03 J**	**1.8**	**0.05 J**	*0.1 U*	*0.1 U*	**0.03 J**	**0.71**	*0.1 U*	**0.26**
2-Methylphenol	µg/L	930	*5 U*	*5 U*	**0.49 J**	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	**0.62 J**
3&4-Methylphenol(m&p Cresol)	µg/L	930	**1 J**	*5 U*	**0.88 J**	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	**1.4 J**
Acenaphthene	µg/L	530	**0.5**	*0.1 U*	**2.1**	**0.04 J**	**0.02 J**	*0.1 U*	**0.98**	**0.12**	**0.1 J**	**0.11**
Acenaphthylene	µg/L	530	**0.05 J**	**0.02 J**	**0.59**	**0.02 J**	**0.02 J**	*0.1 U*	**0.09 J**	**0.49**	**0.06 J**	*0.1 U*
Anthracene	µg/L	1,800	**0.13**	**0.03 J**	**0.42**	**0.13**	**0.04 J**	**0.02 J**	**0.14**	**0.17**	**0.36**	**0.29**
Benz[a]anthracene	µg/L	0.03	*0.05 U*	**0.05**	**0.05**	*0.05 U*	**0.03 J**	*0.05 U*	**0.03 J**	**0.08**	**0.03 J**	**0.04 J**
Benzo[a]pyrene	µg/L	0.2	*0.1 U*	**0.05 J**	*0.1 U*	*0.1 U*	**0.02 J**	*0.1 U*	*0.1 U*	**0.09 J**	*0.1 U*	*0.1 U*
Benzo[b]fluoranthene	µg/L	0.25	**0.02 J**	**0.07**	**0.02 J**	*0.05 U*	**0.02 J**	**0.02 J**	*0.05 U*	**0.12**	*0.05 U*	*0.05 U*
Benzo[g,h,i]perylene	µg/L	--	*0.1 U*	**0.04 J**	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*	**0.12**	*0.1 U*	*0.1 U*
Benzo[k]fluoranthene	µg/L	2.5	**0.01 J**	**0.02 J**	*0.1 U*	*0.1 U*	**0.01 J**	*0.1 U*	*0.1 U*	**0.11**	*0.1 U*	*0.1 U*
bis(2-Ethylhexyl)phthalate	µg/L	6.0	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*
Carbazole	µg/L	--	*2 U*	*2 U*	**3.6**	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*	*2 U*
Chrysene	µg/L	25	*0.1 U*	**0.04 J**	**0.04 J**	*0.1 U*	**0.01 J**	**0.01 J**	**0.01 J**	**0.09 J**	**0.02 J**	**0.02 J**
Dibenz[a,h]anthracene	µg/L	0.025	*0.05 U*	*0.05 U*	*0.05 U*	*0.05 U*	*0.05 U*	*0.05 U*	*0.05 U*	**0.14**	*0.05 U*	*0.05 U*
Fluoranthene	µg/L	800	**0.11**	**0.11**	**0.73**	**0.04 J**	**0.02 J**	**0.02 J**	**0.21**	**0.1 J**	**0.12**	**0.05 J**
Fluorene	µg/L	290	**0.37**	**0.03 J**	**1.9**	**0.02 J**	*0.1 U*	*0.1 U*	**0.46**	**0.42**	*0.1 U*	**0.08 J**
Indeno[1,2,3-c,d]pyrene	µg/L	0.25	*0.1 U*	**0.04 J**	*0.1 U*	*0.1 U*	**0.01 J**	*0.1 U*	*0.1 U*	**0.13**	*0.1 U*	*0.1 U*
Naphthalene	µg/L	0.12	**1.5**	**0.12**	**31**	**0.18**	**0.09 J**	**0.08 J**	**0.16**	**8.2**	**0.06 JB**	**0.44 B**
Phenanthrene	µg/L	--	**0.44**	**0.08**	**2.7**	**0.06**	**0.02 J**	*0.05 U*	**0.37**	**0.61**	*0.05 U*	**0.1**
Phenol	µg/L	5,800	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*
Pyrene	µg/L	120	**0.08 J**	**0.09 J**	**0.55**	**0.05 J**	**0.03 J**	**0.03 J**	**0.14**	**0.08 J**	**0.1**	**0.03 J**
VOCs												
1,1-Dichloroethane	µg/L	2.7	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*
2-Butanone (MEK)	µg/L	5,600	*5 U*	*5 U*	*5 U*	**2.5 J**	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*
Acetone	µg/L	14,000	*5 U*	**3.7 J**	*5 U*	**6.6**	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*
Benzene	µg/L	5.0	*0.5 U*	**1.5**	**0.92**	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
Bromomethane	µg/L	7.5	*1 U*	*1 U*	*1 U*	**0.47 J**	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*
Chloromethane	µg/L	190	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*	*2.5 U*
Cyclohexane	µg/L	13,000	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*	*10 U*
Ethylbenzene	µg/L	700	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
Isopropylbenzene	µg/L	450	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
m&p-Xylene	µg/L		*1 U*	**0.7 J**	**0.44 J**	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*
o-Xylene	µg/L		*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*
Toluene	µg/L	1,000	*0.75 U*	**0.87**	**0.4 J**	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	23
Vinyl chloride	µg/L	2.0	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*
Xylenes	µg/L	10,000	*1 U*	**0.7 J**	**0.44 J**	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*

Detections in bold
Values in red indicate an exceedance of the groundwater Project Action Limit (PAL)

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
JB: The positive result reported for this analyte is a quantitative estimate and was detected above the reporting limits in the associated method blank.
B: The analyte was detected above the reporting limits in the associated method blank.
µg/L: micrograms per liter
PAL: Project Action Limit

Table 1 - Parcel B14 Groundwater Sampling (1st Quarter 2024)
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	HI18-MWS 2/6/2024	HI19-MWS 2/20/2024	HI21-MWS 2/20/2024	HI22-MWS 2/16/2024	TM04-PZM006 2/8/2024	TM08-PZM007 2/6/2024
SVOCs								
1,1-Biphenyl	µg/L	0.83	*2 U*	**0.78 J**	*2 U*	*2 U*	*2 U*	*2 U*
2,4-Dimethylphenol	µg/L	360	*5 U*	**21**	*5 U*	*5 U*	*5 U*	**3.7 J**
2-Methylnaphthalene	µg/L	36	**0.04 J**	**2.2**	*0.1 U*	**0.04 J**	**0.04 J**	*0.1 U*
2-Methylphenol	µg/L	930	*5 U*	**0.92 J**	*5 U*	*5 U*	*5 U*	*5 U*
3&4-Methylphenol(m&p Cresol)	µg/L	930	*5 U*	**9.2**	*5 U*	*5 U*	*5 U*	*5 U*
Acenaphthene	µg/L	530	**0.11**	**0.7**	*0.1 U*	**0.02 J**	0.16	*0.1 U*
Acenaphthylene	µg/L	530	*0.1 U*	**0.36**	*0.1 U*	**0.03 J**	0.44	**0.01 J**
Anthracene	µg/L	1,800	**0.32**	**0.28**	**0.05 J**	*0.1 U*	0.16	**0.08 J**
Benz[a]anthracene	µg/L	0.03	**0.06**	**0.02 J**	**0.02 J**	**0.03 J**	**0.04 J**	**0.03 J**
Benzo[a]pyrene	µg/L	0.2	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*	**0.04 J**	**0.02 J**
Benzo[b]fluoranthene	µg/L	0.25	**0.02 J**	**0.01 J**	**0.02 J**	*0.05 U*	0.06	**0.03 J**
Benzo[g,h,i]perylene	µg/L	--	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*	**0.05 J**	**0.03 J**
Benzo[k]fluoranthene	µg/L	2.5	**0.01 J**	*0.1 U*	*0.1 U*	*0.1 U*	**0.04 J**	**0.02 J**
bis(2-Ethylhexyl)phthalate	µg/L	6.0	**1.5 J**	*3 U*	*3 U*	*3 U*	*3 U*	*3 U*
Carbazole	µg/L	--	*2 U*	**1.2 J**	*2 U*	*2 U*	*2 U*	*2 U*
Chrysene	µg/L	25	**0.02 J**	**0.02 J**	**0.04 J**	**0.03 J**	**0.04 J**	**0.02 J**
Dibenz[a,h]anthracene	µg/L	0.025	*0.05 U*	*0.05 U*	*0.05 U*	*0.05 U*	**0.04 J**	*0.05 U*
Fluoranthene	µg/L	800	**0.05 J**	0.45	**0.04 J**	**0.05 J**	**0.07 J**	*0.1 U*
Fluorene	µg/L	290	*0.1 U*	**0.85**	**0.11**	**0.05 J**	**0.13**	*0.1 U*
Indeno[1,2,3-c,d]pyrene	µg/L	0.25	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*	**0.05 J**	**0.03 J**
Naphthalene	µg/L	0.12	**0.44 B**	**24**	*0.1 U*	**0.27**	**0.12**	**0.05 JB**
Phenanthrene	µg/L	--	**0.03 J**	**1.5**	**0.31**	*0.05 U*	**0.18**	*0.05 U*
Phenol	µg/L	5,800	*5 U*	*5 U*	*5 U*	*5 U*	**4.8 J**	*5 U*
Pyrene	µg/L	120	**0.04 J**	**0.28**	**0.04 J**	**0.03 J**	**0.07 J**	**0.02 J**
VOCs								
1,1-Dichloroethane	µg/L	2.7	*0.75 U*	*0.75 U*	*0.75 U*	*0.75 U*	**0.34 J**	*0.75 U*
2-Butanone (MEK)	µg/L	5,600	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*	*5 U*
Acetone	µg/L	14,000	*5 U*	*5 U*	*5 U*	*5 U*	**4.4 J**	*5 U*
Benzene	µg/L	5.0	**0.23 J**	**9.1**	*0.5 U*	**0.44 J**	**140**	*0.5 U*
Bromomethane	µg/L	7.5	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*	*1 U*
Chloromethane	µg/L	190	*2.5 U*	*2.5 U*	*2.5 U*	**1.1 J**	*2.5 U*	*2.5 U*
Cyclohexane	µg/L	13,000	*10 U*	*10 U*	*10 U*	*10 U*	**0.37 J**	*10 U*
Ethylbenzene	µg/L	700	*0.5 U*	**0.2 J**	*0.5 U*	*0.5 U*	**2.2**	*0.5 U*
Isopropylbenzene	µg/L	450	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	**0.2 J**	*0.5 U*
m&p-Xylene	µg/L		*1 U*	**2.3**	*1 U*	*1 U*	**2.5**	*1 U*
o-Xylene	µg/L		*1 U*	**1.2**	*1 U*	*1 U*	*1 U*	*1 U*
Toluene	µg/L	1,000	*0.75 U*	**3.4**	*0.75 U*	**0.23 J**	**0.6 J**	*0.75 U*
Vinyl chloride	µg/L	2.0	*1 U*	*1 U*	*1 U*	*1 U*	**0.25 J**	*1 U*
Xylenes	µg/L	10,000	*1 U*	**3.5**	*1 U*	*1 U*	**2.5**	*1 U*

Detections in bold
Values in red indicate an exceedance of the groundwater Project Action Limit (PAL)

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
JB: The positive result reported for this analyte is a quantitative estimate and was detected above the reporting limits in the associated method blank.
B: The analyte was detected above the reporting limits in the associated method blank.
µg/L: micrograms per liter
PAL: Project Action Limit

Table 2 - Parcel B14 Groundwater Sampling
Historic Groundwater Sampling Results

Benzene (µg/L)																				
Well ID	PAL	Dec-01	Jul-04	Oct-17	Oct-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Jan-23	Apr-23	Jul-23	Oct-23	Feb-24
HI02-PZM006	5	**1.2**		**0.88 J**	NS	**1.5**	**0.61**	**0.89**	**0.85**	**0.75**	**0.66**	**0.71**	**0.78**	**0.93**	**0.62**	**0.74**	**0.74**			*0.5 U*
HI04-PZM006	5	*1 U*		*1 U*	NS	*0.5 U*	*0.5 U*	*0.50 U*	*0.5 U*											
HI07-PZM005	5	**25**	**16**	**16.2**	NS	**13.0**	**13.0**	**16.0**	**4.4**	**11**	**11**	**12.0**	**12.0**	**14**	**12**	**10**	**11**	**8.7**		**1.5**
HI10-MWS	5					**0.8**	**6.6**	**2.3**	**0.48 J**	*1.0 U*	**0.34 J**	**0.57**	**0.30 J**	**0.47 J**	**0.43 J**	*0.50 U*	**0.69**	**0.39 J**	**0.97**	**0.92**
HI11-MWS	5					**0.18 J**	**0.89**	**0.71**	*0.5 U*	**0.18 J**	*0.50 U*	*10 U*	*0.50 U*	**0.21 J**	*0.50 U*	*0.50 U*	*2.5 U*	*2.5 U*	**0.5 U**	*0.5 U*
HI12-MWS	5					**0.96**	*0.5 U*	*0.50 U*	*0.5 U*	**0.16 J**	**0.21 J**	**0.36 J**	**1.4**	**1.4**	**0.22 J**	*0.50 U*	*0.5 U*	**0.54**	*0.5 U*	*0.5 U*
HI13-MWS	5					**0.23 J**	**0.86**	**0.76**	**0.28 J**	**0.76**	**1.5**	**5.1**	**5.8**	**7.7**	*0.50 U*	**0.16 J**	0.8	**1.2**	**3.6**	*0.5 U*
HI14-MWS	5					*0.5 U*	*0.5 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	**0.5 U**	*0.5 U*
HI15-MWS	5					**0.43 J**	*0.5 U*	**0.22 J**	*0.5 U*	**0.17 J**	*0.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
HI16-MWS	5					*0.5 U*	*0.5 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
HI17-MWS	5					*0.5 U*	*0.5 U*	*0.50 U*	NS (b)	*0.5 U*	*0.5 U*	NS (b)	NS (b)	NS (b)	*0.50 U*	NS (b)	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
HI18-MWS	5					*0.5 U*	*0.5 U*	*0.50 U*	*0.5 U*	*0.5 U*	*2.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	**0.23 J**
HI19-MWS	5					**9.7**	**8.8**	**8.9**	**12**	**5.4**	**7.7**	**8.2**	**9.7**	**10**	**8.3**	**8.9**	**9.8**	**8.5**	**11**	**9.1**
HI20-MWS	5					**0.94**	1.1	**1.2**	**0.50**	**0.72**	**1.10**	**1.3**	**1.3**	NS (c)	**1.4**	**1.4**	**1.4**			
HI21-MWS	5									*0.50 U*	*0.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*
HI22-MWS	5						*2.5 U*	*0.50 U*	*5 U*	*0.50 U*	*2.5 U*	*5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*2.5 U*	NS	**0.3 J**	**0.44 J**
TM04-PZM006	5	**1400**	**610**	**653**	**355**	**390**	**390**	**380**	**180**	**500**	**500**	**460**	**400**	**500**	**540**	**500**	**500**	**340**	**490**	**140**
TM08R-PZM007	5	*1 U*		*1 U*	NS	*0.5 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.5 U*	*0.5 U*	*0.5 U*

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation / detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
B: The analyte was detected above the reporting limits in the associated method blank.
NS: Not Sampled
µg/L: micrograms per liter
PAL: Project Action Limit
(a) Analysis was re-run due to B qualifier.
(b) HI17-MWS was not sampled in January 2023 due to trace NAPL.
(c) HI20-MWS was within an active demoltion area and could not be safely accessed.

	Well not installed
	Well damaged/abandoned

Table 2 - Parcel B14 Groundwater Sampling
Historic Groundwater Sampling Results

Naphthalene (µg/L)																				
Well ID	PAL	Dec-01	Jul-04	Oct-17	Oct-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Jan-23	Apr-23	Jul-23	Oct-23	Feb-24
HI02-PZM006	0.12	**7.3 J**		**5.1**	NS	**5.2**	**2.5**	**7.3**	**8.6**	**7.3**	**6.2**	**5.3**	**8.6**	**5.3**	**9.9**	**8.6**	**8.6**			**1.5**
HI04-PZM006	0.12			**0.15**	NS	*0.1 U*	*0.1 U*	*1.0 U*	**0.06 J**											
HI07-PZM005	0.12	**40**	**16**	**26.1**	NS	**15**	**14.0**	**50**	**1.4**	**0.05 J**	**8.1**	**14.0**	**16**	**12**	**16**	**10**	**9.8**	**12**		**0.12**
HI10-MWS	0.12					**4.9**	**2.5**	**9.0**	**0.57**	**1.4**	**0.23**	**0.87**	**0.4**	**0.63**	**0.81**	**0.16**	**2.8**	**2.2 B**	**33**	**31**
HI11-MWS	0.12					**0.07 J**	**0.07 J**	*1.0 U*	**0.10**	**0.11**	**0.17**	**0.20**	*0.10 U*	0.10	**0.12**	**0.11**	**0.12**	**0.08 JB**	**0.38**	**0.18**
HI12-MWS	0.12					**0.12**	*0.1 U*	**0.82 J**	**0.92**	**0.35**	**0.79**	**9.0**	**0.98**	**0.63**	**4.3**	**2.4**	**4.2**	**0.06 J**	**10**	**0.09 J**
HI13-MWS	0.12					**0.07 J**	**0.11**	**0.40 J**	**0.09 J**	0.11	**0.17**	**0.28**	**0.44**	**0.39**	*0.1 U*	*0.10 U*	**0.15**	**0.12 B**	**0.72 B**	**0.08 J**
HI14-MWS	0.12					**0.32**	**0.53**	**0.64 J**	**0.23**	**0.24**	**0.34**	**0.54**	**0.36**	**0.55**	**0.29**	**0.28**	**0.28**	**0.48**	**0.16**	**0.16**
HI15-MWS	0.12					**0.42**	**0.06 J**	**0.38 J**	**1.4**	**0.22**	*0.10 U*	**0.07 J**	**0.12**	**0.08 J**	**0.07 J**	*0.10 U*	*0.1 U*	*0.1 U*	**0.09 J**	**8.2**
HI16-MWS	0.12					**0.16**	*0.1 U*	**0.36 J**	**0.08 J**	*0.10 U*	**0.09 J**	**0.14**	**0.10 J**	**0.07 J**	*0.1 U*	**0.07 J**	*0.1 U*	*0.1 U*	*0.1 U*	**0.06 JB**
HI17-MWS	0.12					**0.68**	**0.22**	**0.67 J**	NS (b)	**0.32**	**0.13**	NS (b)	NS (b)	NS (b)	**0.23**	NS (b)	**0.27**	**0.52**	**0.55**	**0.44 B**
HI18-MWS	0.12					*0.1 U*	*0.1 U*	**0.42 J**	**0.08 J**	*0.10 U*	**0.05 JB**	*0.1 U*	**0.26**	*0.10 U*	**0.05 J**	**0.07 J**	**0.07 J**	*0.1 U*	**0.18**	**0.44 B**
HI19-MWS	0.12					**33**	**18.0**	**62**	**62**	**21**	**16**	**18.0**	**25**	**28**	**24**	**24**	**25**	**26**	**34**	**24**
HI20-MWS	0.12					**1.8**	**4.5**	**6.2**	**1.8**	**2.9**	**4.2**	**4.6**	**6.4**	NS (c)	**7.4**	**5.5**	**7.9**			
HI21-MWS	0.12									**0.07 J**	**0.06 J**	**0.06 J**	**0.26 B / 0.07 J (a)**	**0.08 J**	**0.12**	*0.10 U*	*0.1 U*	*0.1 U*	*0.1 U*	*0.1 U*
HI22-MWS	0.12						**0.11**	*1.0 U*	**0.32**	**0.07 J**	**0.32**	**0.11**	**0.06 J**	*0.10 U*	*0.10 U*	*0.10 U*	*0.1 U*	NS	**0.16 J**	**0.27**
TM04-PZM006	0.12	**200**	**51**	**405**	**358**	**150 E**	**69**	**240**	**54**	**230**	**160**	**180**	**140**	**210**	**160**	**210**	**68**	*0.1 U*	**170**	**0.12**
TM08R-PZM007	0.12	*10 U*		**0.096 J**	NS	*0.1 U*	**0.10**	*1.0 U*	*0.1 U*	*0.10 U*	*0.10 U*	*0.1 U*	*0.10 U*	*0.10 U*	*0.10 U*	*0.10 U*	*0.1 U*	*0.1 U*	*0.1 U*	**0.05 JB**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation / detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
B: The analyte was detected above the reporting limits in the associated method blank.
E: Analyte concentration is greater than the reporting limit; however, the reported concentration should be considered estimated.
NS: Not Sampled
µg/L: micrograms per liter
PAL: Project Action Limit
(a) Analysis was re-run due to B qualifier.
(b) HI17-MWS was not sampled due to trace NAPL.
(c) HI20-MWS was within an active demoltion area and could not be safely accessed.

Well not installed
Well damaged/abandoned

Table 3 - Parcel B24 Groundwater Sampling (1st Quarter 2024)
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	B24-002-MWS 2/13/2024	TS03-PDP002 2/13/2024
SVOCs				
2-Methylnaphthalene	µg/L	36	**0.04 J**	*0.1 U*
Acenaphthene	µg/L	530	**0.02 J**	*0.1 U*
Acenaphthylene	µg/L	530	**0.01 J**	*0.1 U*
Anthracene	µg/L	1,800	**0.02 J**	*0.1 U*
Benzo[b]fluoranthene	µg/L	0.25	**0.02 J**	*0.05 U*
Benzo[k]fluoranthene	µg/L	2.5	**0.01 J**	*0.1 U*
Chrysene	µg/L	25	**0.02 J**	*0.1 U*
Fluoranthene	µg/L	800	**0.07 J**	*0.1 U*
Fluorene	µg/L	290	**0.03 J**	*0.1 U*
Naphthalene	µg/L	0.12	**0.25**	**0.09 J**
Phenanthrene	µg/L	--	**0.06**	*0.05 U*
Phenol	µg/L	5,800	*5 U*	*5 U*
Pyrene	µg/L	120	**0.09 J**	*0.1 U*
VOCs				
Acetone	µg/L	14,000	**3.6 J**	*5 U*
Bromodichloromethane	µg/L	0.13	**13**	*0.5 U*
Bromoform	µg/L	3.3	**5.9**	*2 U*
Chloroform	µg/L	0.22	**10**	*0.75 U*
Dibromochloromethane	µg/L	0.17	**11**	*0.5 U*

Detections in bold
Values in red indicate an exceedance of the groundwater Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.

µg/L: micrograms per liter
PAL: Project Action Limit

Table 4 - Parcel B14 Surface Water Sampling (1st Quarter 2024)
Summary of Organics Detected in Surface Water

Parameter		EPA Region 4 Surface Water (Freshwater, Chronic)	TMC-BEND 2/8/2024	TMC-OUTLET 2/8/2024	TMC-RAIL BRIDGE 2/8/2024	TMC-TM04 2/8/2024
SVOCs by EPA 8270D / PAHs by EPA 8270D SIM						
Benz[a]anthracene	µg/L	4.7	*0.05 U*	*0.05 U*	**0.02 J**	**0.02 J**
Benzo[b]fluoranthene	µg/L	2.6	*0.05 U*	*0.05 U*	**0.03 J**	*0.05 U*
Carbazole	µg/L	4.0	*2 U*	**0.5 J**	*2 U*	*2 U*
Indeno[1,2,3-c,d]pyrene	µg/L	0.012	*0.1 U*	*0.1 U*	**0.1 J**	*0.1 U*
Naphthalene	µg/L	21	*2 U*	**0.88 J**	**1.4 J**	**0.63 J**
Pentachlorophenol	µg/L	--	**0.18**	**0.15**	**0.16**	**0.12**
Phenanthrene	µg/L	2.3	*2 U*	**0.56 J**	*2 U*	**0.48 J**
VOCs by EPA 8260C						
Acetone	µg/L	1700	**3.7 J**	**2.9 J**	**3.5 J**	**3.6 J**
Benzene	µg/L	160	**0.38 J**	**0.50**	**0.38 J**	**0.52**
Carbon disulfide	µg/L	15	*5 U*	**2.2 J**	*5 U*	**2.4 J**
Chloroform	µg/L	140	*0.75 U*	**0.77**	*0.75 U*	**0.81**

Notes:

Detections in bold

Exceedances of EPA Region 4 Surface Water Screening Levels (freshwater, chronic) in red

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit

B: The analyte was detected above the reporting limit in the associated method blank.

J: Estimated Value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL).

µg/L: micrograms per liter

PAL: Project Action Limit

Table 5 - Parcel B14
Historic Surface Water Sampling Results

Benzene (µg/L)																
Location	GW PAL	EPA Region 4 SW	2/4/22	2/9/22	3/21/22	4/19/22	5/18/22	6/16/22	7/29/22	8/23/22	9/19/22	10/26/22	1/12/23	4/6/23	7/18/23	10/4/23	2/8/24
TMC-Bend	5	160	NS	NS	*0.50 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.5 U*	*0.50 U*	**0.21 J**	*0.50 U*	*0.50 U*	*0.5 U*	**0.25 J**	*0.5 U*	**0.38 J**
TMC-Outlet	5	160	*1 U*	**1.84**	*0.50 U*	**0.54**	**0.82**	*0.50 U*	**0.17 J**	**2.1**	*0.05 U*	**1.0**	**0.20 J**	**0.62**	**0.62**	*0.5 U*	**0.50**
TMC-Rail Bridge	5	160	*5 U*	*1 U*	*0.50 U*	*0.5 U*	*0.50 U*	*0.50 U*	*0.5 U*	**0.16 J**	**0.22 J**	*0.50 U*	**0.50 J**	*0.5 U*	**0.22 J**	*0.5 U*	**0.38 J**
TMC-TM04	5	160	*5 U*	**3.49**	**0.16 J**	**2.0**	**1.1**	*0.50 U*	*0.5 U*	**1.2**	**0.29 J**	*0.50 U*	**0.20 J**	**0.51**	**0.51**	*0.5 U*	**0.52**

Naphthalene (µg/L)																	
Location	GW PAL	EPA Region 4 SW	2/4/22	2/9/22	3/21/22	4/19/22	5/18/22	6/16/22	7/29/22	8/23/22	9/19/22	10/26/22	1/12/23	4/6/23	7/18/23	10/4/23	2/8/24
TMC-Bend	0.12	21	NS	NS	**0.03 J**	0.62	**0.06 J**	**0.06 J**	**0.17**	*0.10 U*	**0.11**	*0.10 U*	*0.10 U*	**0.15**	**0.15**	0.13	*2 U*
TMC-Outlet	0.12	21	*1 U*	**3.33**	**0.03 J**	**1.2**	*0.10 U*	*0.10 U*	**0.22**	*0.10 U*	**0.06 J**	*0.10 U*	*0.10 U*	*0.1 U*	*0.1 U*	0.1 U	**0.88 J**
TMC-Rail Bridge	0.12	21	*1 U*	*1 U*	*0.10 U*	**0.58**	**0.05 J**	*0.10 U*	**1.1**	*0.10 U*	**0.11**	**0.06 J**	*0.10 U*	*0.1 U*	**0.27**	**0.08 J**	**1.4 J**
TMC-TM04	0.12	21	*1 U*	**1.3**	**0.03 J**	**0.79**	*0.10 U*	**0.12**	**0.12**	*0.10 U*	**0.14**	*0.10 U*	*0.10 U*	**0.34**	**0.34**	0.1 U	**0.63 J**

Detections in bold
Exceedances of EPA Region 4 Surface Water Screening Levels (freshwater, chronic) in red

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation / detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
B: The analyte was detected above the reporting limits in the associated method blank.
µg/L: micrograms per liter
PAL: Project Action Limit
Starting in March 2022, naphthalene was analyzed by SIM PAH.

Table 6 - Parcel B14
Groundwater Elevations

Well Designation	Top of Casing (ft, AMSL)	January 2024	
		Depth to Water (ft)	Groundwater Elevation (ft, AMSL)
B24-001-MWS	11.30	10.19	1.11
B24-002-MWS	12.43	10.69	1.74
HI02R-PZM006 (b, d)	11.61	9.00	2.61
HI07R-PZM005 (b, d)	11.65	9.20	2.45
HI10-MWS	12.50	12.25	0.25
HI11-MWS (c)	13.08	12.35	0.73
HI12-MWS (c)	11.54	7.94	3.60
HI13-MWS	11.29	10.75	0.54
HI14-MWI	15.11	14.19	0.92
HI14-MWS	14.65	14.12	0.53
HI15-MWS	13.43	13.32	0.11
HI16-MWS	10.53	10.41	0.12
HI17-MWS (a)	10.11	9.83	0.28
HI18-MWS	9.35	9.16	0.19
HI19-MWS	10.18	7.91	2.27
HI20R-MWS (b, d)	11.49	8.59	2.90
HI22-MWS (c)	11.49	8.44	3.05
TM04-PZM006	12.00	12.38	-0.38
TM08R-PZM007	9.92	9.70	0.22
TS03-PDP002	13.53	12.33	1.20

Notes:
(a) Absorbent socks are utilized in HI17-MWS to address minor NAPL
(b) Replacement well was installed in January 2024.
(c) Well was re-surveyed in December 2023.
(d) Well was surveyed in March 2024.

Table 7 - Parcel B14
NAPL Gauging Activities

Sample ID	Installation Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	1/10/2024			1/25/2024			2/7/2024			2/20/2024			3/5/2024		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
HI20R-MWS	1/25/2024	15	5-15	3	NM	NM	NM	-	8.59	-	NM	NM	NM	**9.79**	**10.52**	**0.73**	NM	NM	NM
HI17-MWS	12/23/2021	20	5-20	2.13	**trace**	**10.90**	**trace**	NM	NM	NM	NM	NM	NM	NM	NM	NM	**trace**	**9.44**	**trace**
					HI17-MWS: absorbent sock deployed						HI17-MWS: absorbent sock removed; 1/2 saturated			HI20R-MWS: absorbent sock deployed			HI17-MWS: absorbent sock deployed		

NM = Not Measured
SHADED = NAPL Detection
bgs = below ground surface
TOC = Top of Casing

Notes:
1. HI20R-MWS installed on January 25, 2024.

APPENDIX A

ARM Group LLC
Engineers and Scientists

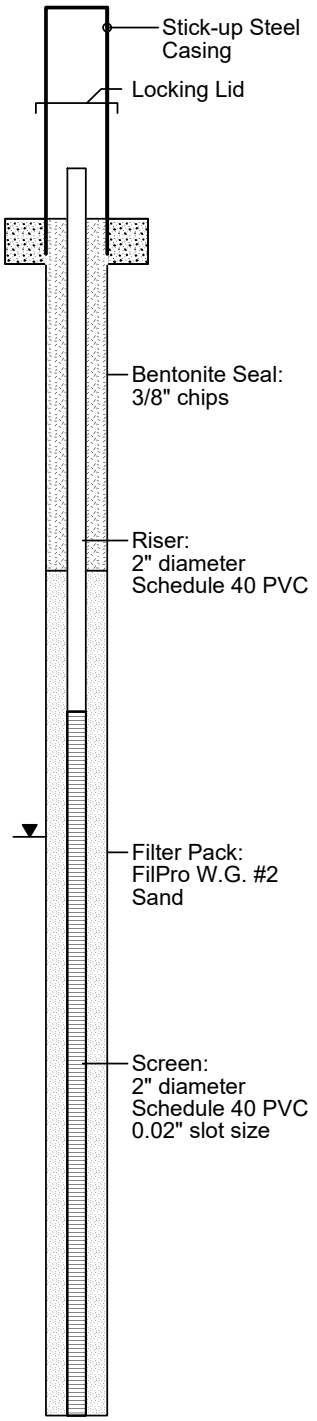
Well ID: HI02R-PZM006

(page 1 of 1)

Project Name	: B14 Well Re-Installation
Project Number	: 21010214
Client	: Tradepoint Atlantic
Site	: Sparrows Point
Borehole Location	: Parcel B14
ARM Representative	: T. Palank G.I.T.
Checked by	: S. Lowe G.I.T.
Drilling Company	: Kim Engineering
Driller	: Wes
Drilling Equipment	: Split-Spoon Auger

Northing (ft)	: 569897.65
Easting (ft)	: 1457446.57
Date/Time Completed	: 1/24/2024
Surf. Elev. (ft AMSL)	:
TOC Elev. (ft AMSL)	:
PVC Stick-up (ft)	: 2.42 ags
Total Well Depth (ft)	: 17.50 bgs
Depth to Water (ft)	: 0 hr: 9.82 TOC
Borehole Diameter (in.):	6

Depth (ft.)	%Recovery	PID (ppm)	DESCRIPTION	REMARKS
0–1	15	0.0	(0-2') FILL Black GRAVEL SLAG, top soil and organic matter observed, dense, no plasticity, no cohesion (WET)	
2–3	35	0.0	(2- 3') FILL Black GRAVEL SAND SLAG, dense, no plasticity, no cohesion, minor top soil observed (WET)	
4–5	50	0.1	(3-4') FILL Yellow to brown, SAND SLAG with some SILT and GRAVEL, soft, no plasticity, minor cohesion (DAMP) (4-5') FILL Blue grey coarse GRAVEL SLAG with sand, dense, dry, no plasticity, no cohesion (DRY)	
6–7	25	0.4	(5-6') FILL Yellow to light brown SAND SLAG with GRAVEL, soft, no plasticity, no cohesion (DRY) (6-7.5') FILL Dark blue grey GRAVEL SLAG with SAND, dense, no plastcity, no cohesion (WET)	Wet @ 6' bgs
8–9	50	0.1	(7.5-8') FILL Brown GRAVEL SLAG with SAND, dense, no plastcity, no cohesion (WET) (8'-10') FILL Blue grey GRAVEL SLAG with SAND, hard, no plasticity, no cohesion (WET)	
10–11	50	0.1	(10-12') FILL Blue grey SILTY SAND SLAG with coarse GRAVEL, dense, no plasticity, no cohesion (WET)	
12–13	60	0.2	(12-14') FILL Black to grey SAND SLAG with GRAVEL, dense, no plastcity, no cohesion (WET)	
14–15	35	0.1	(14'-15.5') FILL Black to grey SANDY GRAVEL SLAG , dense, no plastcity, no cohesion (WET)	
16–17	55	0.1	(15.5'-17') FILL Black to grey SAND SLAG with GRAVEL, dense, no plasticity, no cohesion (WET)	



TOC - Top of PVC Casing
AMSL - Above Mean Sea Level
ags - above ground surface
bgs - below ground surface

Bentonite seal: 0-5' bgs
Filter pack: 5-17' bgs
Well riser: 3' ags to 7' bgs
Well screen: 7-17' bgs

ARM Group LLC
Engineers and Scientists

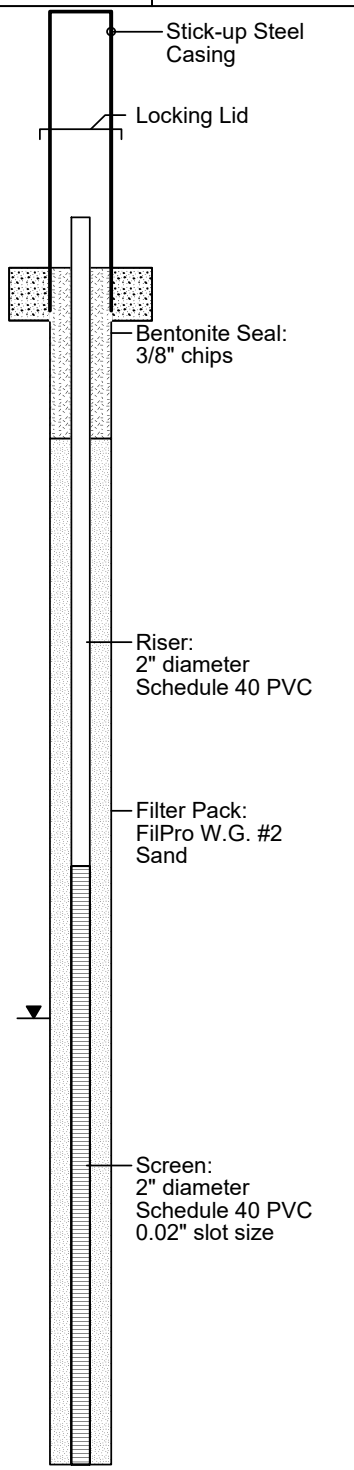
Well ID: HI07R-PZM005

(page 1 of 1)

Project Name	: B14 Well Re-Installation
Project Number	: 21010214
Client	: Tradepoint Atlantic
Site	: Sparrows Point
Borehole Location	: Parcel B14
ARM Representative	: T. Palank G.I.T.
Checked by	: S. Lowe G.I.T.
Drilling Company	: Kim Engineering
Driller	: Wes
Drilling Equipment	: Split-Spoon Auger

Northing (ft)	: 570206.76
Easting (ft)	: 1458401.34
Date/Time Completed	: 1/24/2024
Surf. Elev. (ft AMSL)	:
TOC Elev. (ft AMSL)	:
PVC Stick-up (ft)	: 2.61 ags
Total Well Depth (ft)	: 16.18 bgs
Depth to Water (ft)	: 0 hr: 9.99 TOC
Borehole Diameter (in.):	6

Depth (ft.)	%Recovery	PID (ppm)	DESCRIPTION
0			
1	40	0.1	(0-2') FILL Black SANDY GRAVEL SLAG, dense, no plasticity, no cohesion (DAMP)
2			
3	60	0.2	(2- 3') FILL Black GRAVEL SAND SLAG, dense, no plasticity, no cohesion, minor top soil observed (WET) (3-4') FILL Black GRAVEL SANDY SLAG, dense, no plasticity, no cohesion (DAMP)
4			
5	75	0.1	(4-5') FILL Black SANDY GRAVEL SLAG, dense, no plasticity, no cohesion (DAMP) (5-5.5') FILL Yellow to light brown SANDY SILTY SLAG, very dense, no plasticity, no cohesion (DRY)
6			
7	90	1.1	(5.5-6') FILL Black SANDY GRAVEL, minor SILT, dense, no plasticity, no cohesion (DAMP) (6-7') FILL Black SANDY GRAVEL, minor SILT, dense, no plasticity, no cohesion (DAMP)
8			
9	75	0.1	(7-8') FILL Black SANDY GRAVEL, minor SILT, dense, no plasticity, minor cohesion (WET) (8-10') FILL SANDY GRAVEL SLAG, minor SILT, dense, no plasticity, minor cohesion (WET)
10			
11	70	0.7	
12			
13	75	0.1	(12-14') FILL Coarse SAND SLAG, with minor SILT and GRAVEL, dense, no plasticity, minor cohesion (WET)
14			



REMARKS

Wet @ 7.5' bgs

TOC - Top of PVC Casing
AMSL - Above Mean Sea Level
ags - above ground surface
bgs - below ground surface

Bentonite seal: 0-2' bgs
Filter pack: 2-14' bgs
Well riser: 3' ags to 7' bgs
Well screen: 7-14' bgs

ARM Group LLC
Engineers and Scientists

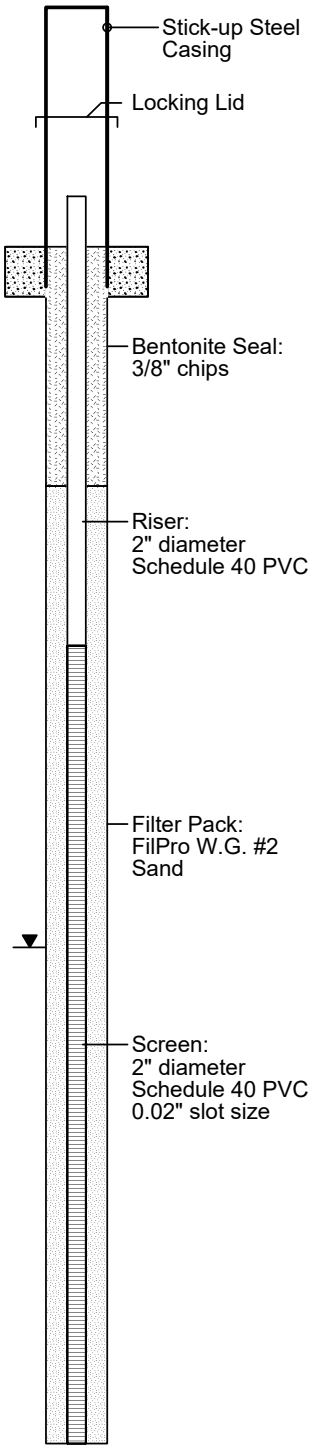
Well ID: HI20R-MWS

(page 1 of 1)

Project Name	: B14 Well Re-Installation
Project Number	: 21010214
Client	: Tradepoint Atlantic
Site	: Sparrows Point
Borehole Location	: Parcel B14
ARM Representative	: T. Palank G.I.T.
Checked by	: S. Lowe G.I.T.
Drilling Company	: Kim Engineering
Driller	: Wes
Drilling Equipment	: Split-Spoon Auger

Northing (ft)	: 569963.49
Easting (ft)	: 1457949.76
Date/Time Completed	: 1/25/2024
Surf. Elev. (ft AMSL)	:
TOC Elev. (ft AMSL)	:
PVC Stick-up (ft)	: 3' ags
Total Well Depth (ft)	: 17.18 bgs
Depth to Water (ft)	: 0 hr: 9.28 TOC
Borehole Diameter (in.)	: 6

Depth (ft.)	%Recovery	PID (ppm)	DESCRIPTION	REMARKS
0–1	55	0.0	(0-2') FILL Brown to black SANDY GRAVEL SLAG, loose, no plasticity, no cohesion (DRY)	
2–3	65	0.1	(2'-4') FILL Brown to black SAND SLAG with coarse GRVAEL, loose, no plasticity, no cohesion (DRY)	
4–5	70	0.3	(4'-4.25') FILL Brown to black SAND SLAG with coarse GRVAEL, loose, no plasticity, no cohesion (DRY)	
		7.4	(4.25'-6') FILL Blue grey SILTY CLAY SLAG, grain size coarsens down, dense, high cohesion, low plasticity (DAMP)	
6–7	75	0.4	(6'-6.25') FILL Blue to black SILT SLAG with minor SAND and GRAVEL, soft, cohesive, no plastcity (DAMP)	
		1.8	(6.25'-7') FILL Black TAR, sticky/ oily consistency, soft, strong petroleum odor (DAMP)	Wet @ 7' bgs
8–9	65	0.3	(7'-8') FILL Brown coarse SANDY GRAVEL SLAG, hard, no plastcity, no cohesion (WET)	10 " Tar observed at 8'bgs
9–10			(8'-9.25') FILL Black TARY CLAY SLAG with minor GRAVEL, soft, moderate plasticity, high cohesion (WET)	
10–11	45	0.2	(9.25'-10') FILL Brown SANDY GRAVEL SLAG, hard, no plasticity, no cohesion (WET)	
			(10'-12') FILL Black TARY CLAY SLAG with minor GRAVEL, interbedded with TAR, moderate plasticity, high cohesion (WET)	
12–13	65	0.8	(12'-14') FILL Black TAR coated SANDY GRAVEL SLAG, loose, no plasticity, moderate cohesion (WET)	
14–15	50		(14'-15') FILL Black SANDY GRAVEL with TAR, loose, high cohesion, no plasticity (WET)	



TOC - Top of PVC Casing
AMSL - Above Mean Sea Level
ags - above ground surface
bgs - below ground surface

Bentonite seal: 0-3' bgs
Filter pack: 3-15' bgs
Well riser: 3' ags to 5' bgs
Well screen: 5-15' bgs

ARM Group LLC
Engineers and Scientists

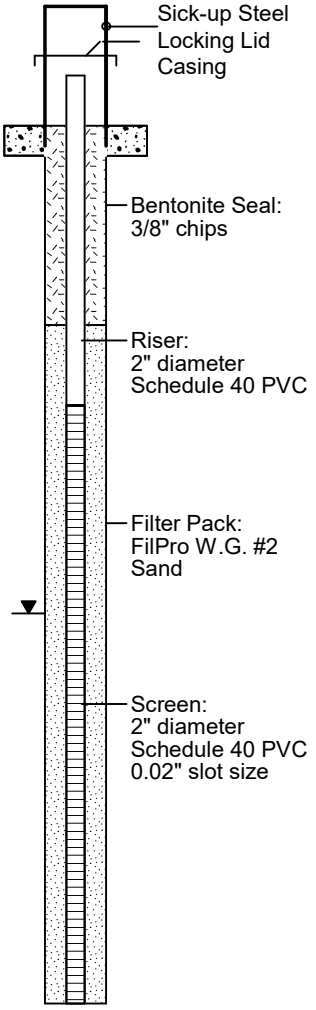
Well ID: HI20R2-MWS

(page 1 of 1)

Project Name	: B14 Well Re-Installation
Project Number	: 21010214
Client	: Tradepoint Atlantic
Site	: Sparrows Point
Borehole Location	: Parcel B14
ARM Representative	: L. Parker
Checked by	: S. Lowe G.I.T.
Drilling Company	: Kim Engineering
Driller	: Wes
Drilling Equipment	: Split-Spoon Auger

Northing (ft)	: 570016.55
Easting (ft)	: 1457952.39
Date/Time Completed	: 3/20/2024
Surf. Elev. (ft AMSL)	:
TOC Elev. (ft AMSL)	:
PVC Stick-up (ft)	: 3' ags
Total Well Depth (ft)	: 17.18 bgs
Depth to Water (ft)	: 0 hr: 15.23 TOC
Borehole Diameter (in.):	6

Depth (ft.)	%Recovery	PID (ppm)	DESCRIPTION	REMARKS
0–10			(0-10') NO RECOVERY	
10–12	60	0.6 0.2	(10'-12') FILL Black SILTY SAND SLAG and GRVAEL, loose (DAMP)	Wet @ 12.75' bgs
12–15			(12-15') NO RECOVERY	
15–17	60	0.0 0.0	(15'-17') FILL Light brown to gray concrete GRAVEL SLAG with black SILTY SAND and GRAVEL, loose (WET)	Odor (15-17' bgs)
17–20			(17-20') NO RECOVERY	
20–22	100	0.0 0.0	(20'-22') FILL Black SILTY SAND and GRAVEL SLAG, dense (WET to DAMP)	Odor (20-20.5' bgs)
22–25			(22-25') NO RECOVERY	
25–26	60	0.0 0.0	(25'-25.25') FILL Black SILTY SAND and GRAVEL, loose (WET)	Landfill Odor(25-25.25')
26–27			(25.25'-27') NATIVE Gray to dark gray SILTY CLAY to CLAYEY SILT, trace very fine SAND and GRAVEL, medium dense, low plasticity, low cohesion (DAMP)	
27–30			End of Boring	



TOC - Top of PVC Casing
AMSL - Above Mean Sea Level
ags - above ground surface
bgs - below ground surface

Bentonite seal: 0-5' bgs
Filter pack: 5-22' bgs
Well riser: 3' ags to 7' bgs
Well screen: 7-22' bgs

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Humphery Imoundment GW Exceedances (Benzene and Naphthalene Only) 1st Quarter 2024

April 15, 2024

Figure 1

0 100 200 400

Feet

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic

Sparrows Point

Baltimore County, MD

ARM Project 21010214

APPENDIX B

ANALYTICAL REPORT

Lab Number:	L2406575
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	B14 Q1 GW
Project Number:	21010214
Report Date:	02/13/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2406575-01	HI18-MWS	WATER	B14	02/06/24 11:35	02/06/24
L2406575-02	HI15-MWS	WATER	B14	02/06/24 12:40	02/06/24
L2406575-03	HI16-MWS	WATER	B14	02/06/24 13:45	02/06/24
L2406575-04	TM08R-PZM007	WATER	B14	02/06/24 14:45	02/06/24
L2406575-05	HI17-MWS	WATER	B14	02/06/24 15:30	02/06/24
L2406575-06	TB-WT-01	WATER	B14	02/06/24 00:00	02/06/24

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
Project Number:	21010214	**Report Date:**	02/13/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
Project Number:	21010214	**Report Date:**	02/13/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics by SIM

The WG1884140-1 Method Blank, associated with L2406575-01 through -05, has a concentration above the reporting limits for Naphthalene; however, re-extraction achieved similar results. Only the results of the re-extract analysis are reported and are qualified with a "B" for any associated sample concentrations that are less than 10x the blank concentration for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 02/13/24

ORGANICS

VOLATILES

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01
Client ID: HI18-MWS
Sample Location: B14

Date Collected: 02/06/24 11:35
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 10:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.23	J	ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01
Client ID: HI18-MWS
Sample Location: B14
Date Collected: 02/06/24 11:35
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	116		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01
Client ID: HI18-MWS
Sample Location: B14

Date Collected: 02/06/24 11:35
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 10:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
4-Bromofluorobenzene	97		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02
Client ID: HI15-MWS
Sample Location: B14

Date Collected: 02/06/24 12:40
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 11:26
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02
Client ID: HI15-MWS
Sample Location: B14
Date Collected: 02/06/24 12:40
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02
Client ID: HI15-MWS
Sample Location: B14

Date Collected: 02/06/24 12:40
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 11:26
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	97		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14

Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 11:54
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14
Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	116		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14

Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 11:54
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
4-Bromofluorobenzene	97		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04
Client ID: TM08R-PZM007
Sample Location: B14

Date Collected: 02/06/24 14:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 12:21
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04
Client ID: TM08R-PZM007
Sample Location: B14
Date Collected: 02/06/24 14:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	116		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04
Client ID: TM08R-PZM007
Sample Location: B14

Date Collected: 02/06/24 14:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 12:21
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	97		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05
Client ID: HI17-MWS
Sample Location: B14

Date Collected: 02/06/24 15:30
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 12:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	23		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05
Client ID: HI17-MWS
Sample Location: B14
Date Collected: 02/06/24 15:30
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05
Client ID: HI17-MWS
Sample Location: B14

Date Collected: 02/06/24 15:30
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 12:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
4-Bromofluorobenzene	98		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-06
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/06/24 00:00
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/08/24 07:17
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-06
Client ID: TB-WT-01
Sample Location: B14
Date Collected: 02/06/24 00:00
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	119		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-06
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/06/24 00:00
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 07:17
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	97		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/08/24 06:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1883291-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/08/24 06:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1883291-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/08/24 06:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1883291-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	116		70-130

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/08/24 06:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-06 Batch: WG1883299-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
4-Bromofluorobenzene	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 Q1 GW

Project Number: 21010214

Lab Number: L2406575

Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1883291-3 WG1883291-4								
Dichlorodifluoromethane	100		100		36-147	0		20
Chloromethane	100		100		64-130	0		20
Vinyl chloride	120		120		55-140	0		20
Bromomethane	130		130		39-139	0		20
Chloroethane	**140**	Q	130		55-138	7		20
Trichlorofluoromethane	100		110		62-150	10		20
1,1-Dichloroethene	110		100		61-145	10		20
Carbon disulfide	110		110		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		110		70-130	0		20
Methylene chloride	110		110		70-130	0		20
Acetone	100		98		58-148	2		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Methyl Acetate	94		95		70-130	1		20
Methyl tert butyl ether	94		95		63-130	1		20
1,1-Dichloroethane	110		100		70-130	10		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Cyclohexane	110		100		70-130	10		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	100		100		63-132	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
2-Butanone	86		94		63-138	9		20
Benzene	100		100		70-130	0		20
1,2-Dichloroethane	100		100		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1883291-3 WG1883291-4								
Trichloroethene	100		100		70-130	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Bromodichloromethane	100		100		67-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
4-Methyl-2-pentanone	90		87		59-130	3		20
trans-1,3-Dichloropropene	90		92		70-130	2		20
1,1,2-Trichloroethane	96		97		70-130	1		20
Dibromochloromethane	93		94		63-130	1		20
1,2-Dibromoethane	98		99		70-130	1		20
2-Hexanone	90		89		57-130	1		20
Chlorobenzene	100		100		75-130	0		20
Ethylbenzene	110		110		70-130	0		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20
Styrene	110		110		70-130	0		20
Bromoform	87		90		54-136	3		20
Isopropylbenzene	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	93		94		67-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 Q1 GW

Project Number: 21010214

Lab Number: L2406575

Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1883291-3 WG1883291-4								
1,2-Dibromo-3-chloropropane	93		93		41-144	0		20
1,2,4-Trichlorobenzene	94		95		70-130	1		20
1,2,3-Trichlorobenzene	96		97		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	95		97		70-130
Dibromofluoromethane	104		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 Q1 GW

Project Number: 21010214

Lab Number: L2406575

Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-06 Batch: WG1883299-3 WG1883299-4								
1,1,2,2-Tetrachloroethane	98		88		70-130	11		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		94		70-130
4-Bromofluorobenzene	98		97		70-130

SEMIVOLATILES

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01
Client ID: HI18-MWS
Sample Location: B14

Date Collected: 02/06/24 11:35
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 12:04
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	0.46	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 Q1 GW **Lab Number:** L2406575

Project Number: 21010214 **Report Date:** 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01 Date Collected: 02/06/24 11:35

Client ID: HI18-MWS Date Received: 02/06/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	1.5	J	ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	78		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-01
Client ID: HI18-MWS
Sample Location: B14

Date Collected: 02/06/24 11:35
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 21:25
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.44	B	ug/l	0.10	0.05	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	0.11		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	0.71		ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.05	0.02	1
Anthracene	0.32		ug/l	0.10	0.01	1
Fluoranthene	0.05	J	ug/l	0.10	0.02	1
Pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.06		ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	58		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	83		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02
Client ID: HI15-MWS
Sample Location: B14

Date Collected: 02/06/24 12:40
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 12:30
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	8.4		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	0.68	J	ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 Q1 GW **Lab Number:** L2406575

Project Number: 21010214 **Report Date:** 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02 Date Collected: 02/06/24 12:40

Client ID: HI15-MWS Date Received: 02/06/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	0.50	J	ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	0.46	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.74	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	77		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-02
Client ID: HI15-MWS
Sample Location: B14

Date Collected: 02/06/24 12:40
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 21:41
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	8.2		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.71		ug/l	0.10	0.02	1
Acenaphthylene	0.49		ug/l	0.10	0.01	1
Acenaphthene	0.12		ug/l	0.10	0.01	1
Fluorene	0.42		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.61		ug/l	0.05	0.02	1
Anthracene	0.17		ug/l	0.10	0.01	1
Fluoranthene	0.10	J	ug/l	0.10	0.02	1
Pyrene	0.08	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.08		ug/l	0.05	0.02	1
Chrysene	0.09	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.12		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.11		ug/l	0.10	0.01	1
Benzo(a)pyrene	0.09	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.13		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	0.14		ug/l	0.05	0.01	1
Benzo(ghi)perylene	0.12		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	81		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14

Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 12:57
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14
Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	0.46	J	ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	77		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-03
Client ID: HI16-MWS
Sample Location: B14

Date Collected: 02/06/24 13:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 21:58
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.06	JB	ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	0.06	J	ug/l	0.10	0.01	1
Acenaphthene	0.10	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.05	0.02	1
Anthracene	0.36		ug/l	0.10	0.01	1
Fluoranthene	0.12		ug/l	0.10	0.02	1
Pyrene	0.10		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	56		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	103		10-120
4-Terphenyl-d14	84		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04
Client ID: TM08R-PZM007
Sample Location: B14

Date Collected: 02/06/24 14:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 13:23
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	3.7	J	ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 Q1 GW **Lab Number:** L2406575

Project Number: 21010214 **Report Date:** 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04 Date Collected: 02/06/24 14:45

Client ID: TM08R-PZM007 Date Received: 02/06/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	81		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-04
Client ID: TM08R-PZM007
Sample Location: B14

Date Collected: 02/06/24 14:45
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 22:15
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.05	JB	ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	0.01	J	ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.05	0.02	1
Anthracene	0.08	J	ug/l	0.10	0.01	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Pyrene	0.02	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	0.02	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	91		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05
Client ID: HI17-MWS
Sample Location: B14

Date Collected: 02/06/24 15:30
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 13:50
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	0.62	J	ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	1.4	J	ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	2.9	J	ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	0.50	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 Q1 GW **Lab Number:** L2406575

Project Number: 21010214 **Report Date:** 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05 Date Collected: 02/06/24 15:30

Client ID: HI17-MWS Date Received: 02/06/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	0.55	J	ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	80		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

SAMPLE RESULTS

Lab ID: L2406575-05
Client ID: HI17-MWS
Sample Location: B14

Date Collected: 02/06/24 15:30
Date Received: 02/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/13/24 06:51
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.44	B	ug/l	0.10	0.05	1
2-Methylnaphthalene	0.26		ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	0.11		ug/l	0.10	0.01	1
Fluorene	0.08	J	ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.10		ug/l	0.05	0.02	1
Anthracene	0.29		ug/l	0.10	0.01	1
Fluoranthene	0.05	J	ug/l	0.10	0.02	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.04	J	ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	45		41-149

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884134-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884134-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884134-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	71		41-149

Project Name: B14 Q1 GW
Project Number: 21010214
Lab Number: L2406575
Report Date: 02/13/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 20:34
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1884140-1					
Naphthalene	0.39		ug/l	0.10	0.05
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02
Acenaphthylene	0.02	J	ug/l	0.10	0.01
Acenaphthene	0.02	J	ug/l	0.10	0.01
Fluorene	0.02	J	ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.05	0.02
Anthracene	ND		ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	64		10-120
4-Terphenyl-d14	75		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884134-2 WG1884134-3								
Benzaldehyde	66		68		40-140	3		30
Phenol	61		65		12-110	6		30
Bis(2-chloroethyl)ether	72		69		40-140	4		30
2-Chlorophenol	76		80		27-123	5		30
2-Methylphenol	76		79		30-130	4		30
Bis(2-chloroisopropyl)ether	67		68		40-140	1		30
Acetophenone	80		83		39-129	4		30
n-Nitrosodi-n-propylamine	74		80		29-132	8		30
3-Methylphenol/4-Methylphenol	86		89		30-130	3		30
Hexachloroethane	73		77		40-140	5		30
Nitrobenzene	75		81		40-140	8		30
Isophorone	78		81		40-140	4		30
2,4-Dimethylphenol	87		90		30-130	3		30
Bis(2-chloroethoxy)methane	78		81		40-140	4		30
2,4-Dichlorophenol	84		87		30-130	4		30
Naphthalene	76		75		40-140	1		30
4-Chloroaniline	73		75		40-140	3		30
Hexachlorobutadiene	77		71		40-140	8		30
Caprolactam	43		40		10-130	7		30
2-Methylnaphthalene	76		75		40-140	1		30
Hexachlorocyclopentadiene	93		85		40-140	9		30
1,2,4,5-Tetrachlorobenzene	80		80		2-134	0		30
2,4,6-Trichlorophenol	89		82		30-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884134-2 WG1884134-3								
2,4,5-Trichlorophenol	91		88		30-130	3		30
Biphenyl	83		82		40-140	1		30
2-Chloronaphthalene	81		81		40-140	0		30
2-Nitroaniline	91		86		52-143	6		30
2,6-Dinitrotoluene	94		86		40-140	9		30
Acenaphthylene	84		83		45-123	1		30
Acenaphthene	79		81		37-111	3		30
2,4-Dinitrophenol	80		82		20-130	2		30
2,4-Dinitrotoluene	85		85		48-143	0		30
2,3,4,6-Tetrachlorophenol	92		86		54-145	7		30
Diethyl phthalate	83		80		40-140	4		30
Fluorene	80		78		40-140	3		30
4-Nitroaniline	85		83		51-143	2		30
NDPA/DPA	83		81		40-140	2		30
Hexachlorobenzene	86		82		40-140	5		30
Pentachlorophenol	91		84		9-103	8		30
Phenanthrene	86		82		40-140	5		30
Anthracene	88		84		40-140	5		30
Carbazole	91		86		55-144	6		30
Di-n-butylphthalate	88		88		40-140	0		30
Fluoranthene	89		87		40-140	2		30
Pyrene	90		88		26-127	2		30
3,3'-Dichlorobenzidine	78		73		40-140	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 Q1 GW

Project Number: 21010214

Lab Number: L2406575

Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884134-2 WG1884134-3								
Benzo(a)anthracene	87		83		40-140	5		30
Chrysene	85		79		40-140	7		30
Bis(2-ethylhexyl)phthalate	91		89		40-140	2		30
Di-n-octylphthalate	86		84		40-140	2		30
Benzo(b)fluoranthene	87		83		40-140	5		30
Benzo(k)fluoranthene	92		84		40-140	9		30
Benzo(a)pyrene	88		82		40-140	7		30
Indeno(1,2,3-cd)pyrene	81		78		40-140	4		30
Dibenzo(a,h)anthracene	84		81		40-140	4		30
Benzo(ghi)perylene	83		80		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		75		21-120
Phenol-d6	57		63		10-120
Nitrobenzene-d5	76		77		23-120
2-Fluorobiphenyl	79		79		15-120
2,4,6-Tribromophenol	94		93		10-120
4-Terphenyl-d14	86		87		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1884140-2 WG1884140-3								
Naphthalene	72		70		40-140	3		40
2-Methylnaphthalene	78		75		40-140	4		40
Acenaphthylene	84		81		40-140	4		40
Acenaphthene	77		73		37-111	5		40
Fluorene	83		79		40-140	5		40
Pentachlorophenol	80		75		9-103	6		40
Phenanthrene	76		71		40-140	7		40
Anthracene	81		75		40-140	8		40
Fluoranthene	88		81		40-140	8		40
Pyrene	88		83		26-127	6		40
Benzo(a)anthracene	79		74		40-140	7		40
Chrysene	76		71		40-140	7		40
Benzo(b)fluoranthene	84		77		40-140	9		40
Benzo(k)fluoranthene	84		80		40-140	5		40
Benzo(a)pyrene	82		76		40-140	8		40
Indeno(1,2,3-cd)pyrene	82		75		40-140	9		40
Dibenzo(a,h)anthracene	86		80		40-140	7		40
Benzo(ghi)perylene	80		73		40-140	9		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 Q1 GW

Project Number: 21010214

Lab Number: L2406575

Report Date: 02/13/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1884140-2 WG1884140-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	66		67		21-120
Phenol-d6	60		61		10-120
Nitrobenzene-d5	87		87		23-120
2-Fluorobiphenyl	78		77		15-120
2,4,6-Tribromophenol	95		91		10-120
4-Terphenyl-d14	85		82		41-149

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2406575-01A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-01B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-01C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-01D	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-01E	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-02A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-02B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-02C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-02D	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-02E	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-03A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-03B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-03C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-03D	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-03E	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-04A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-04B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-04C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-04D	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-04E	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-05A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-05B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-05C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name: B14 Q1 GW
Project Number: 21010214

Lab Number: L2406575
Report Date: 02/13/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2406575-05D	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-05E	Amber 250ml unpreserved	A	7	7	3.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2406575-06A	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-06B	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-06C	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2406575-06D	Vial HCl preserved	A	NA		3.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
Project Number:	21010214	**Report Date:**	02/13/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
Project Number:	21010214	**Report Date:**	02/13/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	B14 Q1 GW	**Lab Number:**	L2406575
Project Number:	21010214	**Report Date:**	02/13/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd In Lab: 2/7/24

ALPHA Job #: L2406575

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: TPA

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: B14 Q1 GW

Project Location: B14

Project #: 210214

Project Manager: BOB L

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC 8260	SVOC 8270 SIM	SAMPLE HANDLING	Sample Specific Comments	TOTAL # BOTTLES
06575-01	HI 18-MWS	2/6/24	1135	GW	TP	X	X			5
-02	HI15-MWS		1240			X	X			5
-03	HI16-MWS		1345			X	X			3
-04	TM08R-Pzn007		1445			X	X			5
-05	HI17-MWS		1530			X	X			3
-06	TB-WT-01	—	—	—	—	X	NW			4

SAMPLE HANDLING: Filtration ☐ Done ☐ Not needed ☐ Lab to do; Preservation ☐ Lab to do (Please specify below)

Container Type	V	A								
Preservative	B	A								

2/7/24 0235

2/7/24 0235

Relinquished By:	Date/Time	Received By:	Date/Time
ABN	2/6/24 1545		2/6/24 1545
	2/6/24 1550		2/6/24 1800
Anthony Green	2/6/24 2400	Anthony Green	FEB 06 2024 2100
	2/7/24 0035		2/7/24 0035

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ANALYTICAL REPORT

Lab Number:	L2407289
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	B14-Q1 2024
Project Number:	21010214
Report Date:	02/15/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2407289-01	HI10-MWS	WATER	B14	02/07/24 10:15	02/08/24
L2407289-02	HI11-MWS	WATER	B14	02/08/24 10:20	02/08/24
L2407289-03	TM04-PZM006	WATER	B14	02/08/24 11:20	02/08/24
L2407289-04	HI12-MWS	WATER	B14	02/08/24 14:55	02/08/24
L2407289-05	HI13-MWS	WATER	B14	02/08/24 15:45	02/08/24
L2407289-06	TB-WT-01	WATER	B14	02/07/24 00:00	02/08/24

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
Project Number:	21010214	**Report Date:**	02/15/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
Project Number:	21010214	**Report Date:**	02/15/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics by SIM

The WG1884140-1 Method Blank, associated with L2407289-01, has a concentration above the reporting limit for Naphthalene. Since the associated sample concentrations are either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required. Any results detected below the reporting limit are qualified with a "B".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 02/15/24

ORGANICS

VOLATILES

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01
Client ID: HI10-MWS
Sample Location: B14

Date Collected: 02/07/24 10:15
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 11:12
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.92		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	0.40	J	ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01 Date Collected: 02/07/24 10:15

Client ID: HI10-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	0.44	J	ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	0.44	J	ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	106		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01
Client ID: HI10-MWS
Sample Location: B14

Date Collected: 02/07/24 10:15
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 11:12
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	92		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02
Client ID: HI11-MWS
Sample Location: B14

Date Collected: 02/08/24 10:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 11:36
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	0.47	J	ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	6.6		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	2.5	J	ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02 Date Collected: 02/08/24 10:20

Client ID: HI11-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	113		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02
Client ID: HI11-MWS
Sample Location: B14

Date Collected: 02/08/24 10:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 11:36
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	94		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03
Client ID: TM04-PZM006
Sample Location: B14

Date Collected: 02/08/24 11:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 12:00
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	0.25	J	ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	4.4	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	0.34	J	ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	0.37	J	ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	140		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	0.60	J	ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03 Date Collected: 02/08/24 11:20

Client ID: TM04-PZM006 Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	2.2		ug/l	0.50	0.17	1
p/m-Xylene	2.5		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	2.5		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	0.20	J	ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	102		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03
Client ID: TM04-PZM006
Sample Location: B14

Date Collected: 02/08/24 11:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 12:00
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
4-Bromofluorobenzene	91		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04 Date Collected: 02/08/24 14:55
Client ID: HI12-MWS Date Received: 02/08/24
Sample Location: B14 Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/14/24 10:47
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04 Date Collected: 02/08/24 14:55

Client ID: HI12-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	112		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04
Client ID: HI12-MWS
Sample Location: B14

Date Collected: 02/08/24 14:55
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/14/24 10:47
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05 Date Collected: 02/08/24 15:45
Client ID: HI13-MWS Date Received: 02/08/24
Sample Location: B14 Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/14/24 11:11
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05 Date Collected: 02/08/24 15:45

Client ID: HI13-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	111		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05
Client ID: HI13-MWS
Sample Location: B14

Date Collected: 02/08/24 15:45
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/14/24 11:11
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	94		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-06 Date Collected: 02/07/24 00:00
Client ID: TB-WT-01 Date Received: 02/08/24
Sample Location: B14 Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/14/24 10:23
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-06 Date Collected: 02/07/24 00:00

Client ID: TB-WT-01 Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	105		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-06
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/07/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/14/24 10:23
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
4-Bromofluorobenzene	94		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1884827-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1884827-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1884827-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1884841-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
4-Bromofluorobenzene	96		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/14/24 08:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-06 Batch: WG1885278-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/14/24 08:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-06 Batch: WG1885278-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/14/24 08:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-06 Batch: WG1885278-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/14/24 08:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 04-06 Batch: WG1885285-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1884827-3 WG1884827-4								
Dichlorodifluoromethane	94		94		36-147	0		20
Chloromethane	100		100		64-130	0		20
Vinyl chloride	120		110		55-140	9		20
Bromomethane	110		110		39-139	0		20
Chloroethane	110		110		55-138	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	100		100		61-145	0		20
Carbon disulfide	100		100		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		110		70-130	10		20
Methylene chloride	100		99		70-130	1		20
Acetone	100		97		58-148	3		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Methyl Acetate	98		90		70-130	9		20
Methyl tert butyl ether	96		94		63-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Cyclohexane	100		100		70-130	0		20
Chloroform	98		96		70-130	2		20
Carbon tetrachloride	110		110		63-132	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
2-Butanone	100		93		63-138	7		20
Benzene	100		100		70-130	0		20
1,2-Dichloroethane	93		94		70-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1884827-3 WG1884827-4								
Trichloroethene	100		98		70-130	2		20
1,2-Dichloropropane	100		100		70-130	0		20
Bromodichloromethane	100		100		67-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Toluene	100		99		70-130	1		20
Tetrachloroethene	100		100		70-130	0		20
4-Methyl-2-pentanone	89		84		59-130	6		20
trans-1,3-Dichloropropene	91		89		70-130	2		20
1,1,2-Trichloroethane	100		96		70-130	4		20
Dibromochloromethane	98		94		63-130	4		20
1,2-Dibromoethane	100		98		70-130	2		20
2-Hexanone	92		87		57-130	6		20
Chlorobenzene	100		100		75-130	0		20
Ethylbenzene	100		100		70-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Bromoform	88		86		54-136	2		20
Isopropylbenzene	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	96		93		67-130	3		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	99		99		70-130	0		20
1,2-Dichlorobenzene	98		98		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214
Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1884827-3 WG1884827-4								
1,2-Dibromo-3-chloropropane	86		82		41-144	5		20
1,2,4-Trichlorobenzene	97		96		70-130	1		20
1,2,3-Trichlorobenzene	97		98		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	102		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1 2024

Project Number: 21010214

Lab Number: L2407289

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1884841-3 WG1884841-4								
1,1,2,2-Tetrachloroethane	103		98		70-130	5		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
4-Bromofluorobenzene	96		96		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-06 Batch: WG1885278-3 WG1885278-4								
Dichlorodifluoromethane	93		90		36-147	3		20
Chloromethane	110		100		64-130	10		20
Vinyl chloride	120		120		55-140	0		20
Bromomethane	120		120		39-139	0		20
Chloroethane	120		120		55-138	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	100		100		61-145	0		20
Carbon disulfide	110		100		51-130	10		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		100		70-130	10		20
Methylene chloride	100		97		70-130	3		20
Acetone	100		95		58-148	5		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Methyl Acetate	97		91		70-130	6		20
Methyl tert butyl ether	92		88		63-130	4		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		97		70-130	3		20
Cyclohexane	100		100		70-130	0		20
Chloroform	98		94		70-130	4		20
Carbon tetrachloride	110		100		63-132	10		20
1,1,1-Trichloroethane	100		99		67-130	1		20
2-Butanone	110		99		63-138	11		20
Benzene	100		100		70-130	0		20
1,2-Dichloroethane	93		100		70-130	7		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-06 Batch: WG1885278-3 WG1885278-4								
Trichloroethene	96		94		70-130	2		20
1,2-Dichloropropane	100		96		70-130	4		20
Bromodichloromethane	100		98		67-130	2		20
cis-1,3-Dichloropropene	100		96		70-130	4		20
Toluene	100		98		70-130	2		20
Tetrachloroethene	100		100		70-130	0		20
4-Methyl-2-pentanone	86		82		59-130	5		20
trans-1,3-Dichloropropene	89		85		70-130	5		20
1,1,2-Trichloroethane	98		96		70-130	2		20
Dibromochloromethane	96		92		63-130	4		20
1,2-Dibromoethane	99		95		70-130	4		20
2-Hexanone	87		83		57-130	5		20
Chlorobenzene	100		98		75-130	2		20
Ethylbenzene	100		99		70-130	1		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Bromoform	84		83		54-136	1		20
Isopropylbenzene	99		97		70-130	2		20
1,1,2,2-Tetrachloroethane	92		92		67-130	0		20
1,3-Dichlorobenzene	99		94		70-130	5		20
1,4-Dichlorobenzene	99		96		70-130	3		20
1,2-Dichlorobenzene	98		95		70-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214
Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-06 Batch: WG1885278-3 WG1885278-4								
1,2-Dibromo-3-chloropropane	84		79		41-144	6		20
1,2,4-Trichlorobenzene	97		91		70-130	6		20
1,2,3-Trichlorobenzene	98		93		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	94		95		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1 2024

Project Number: 21010214

Lab Number: L2407289

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 04-06 Batch: WG1885285-3 WG1885285-4								
1,1,2,2-Tetrachloroethane	93		88		70-130	6		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		99		70-130
4-Bromofluorobenzene	93		94		70-130

SEMIVOLATILES

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01
Client ID: HI10-MWS
Sample Location: B14

Date Collected: 02/07/24 10:15
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/13/24 21:22
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	0.49	J	ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	0.88	J	ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	31		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	1.8	J	ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01 Date Collected: 02/07/24 10:15

Client ID: HI10-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	0.51	J	ug/l	2.0	0.46	1
Acenaphthene	2.0		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	1.8	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	2.6		ug/l	2.0	0.33	1
Anthracene	0.38	J	ug/l	2.0	0.33	1
Carbazole	3.6		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	0.68	J	ug/l	2.0	0.26	1
Pyrene	0.57	J	ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	72		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-01
Client ID: HI10-MWS
Sample Location: B14

Date Collected: 02/07/24 10:15
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/13/24 00:44
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	31		ug/l	0.10	0.05	1
2-Methylnaphthalene	1.8		ug/l	0.10	0.02	1
Acenaphthylene	0.59		ug/l	0.10	0.01	1
Acenaphthene	2.1		ug/l	0.10	0.01	1
Fluorene	1.9		ug/l	0.10	0.01	1
Pentachlorophenol	0.22		ug/l	0.10	0.01	1
Phenanthrene	2.7		ug/l	0.05	0.02	1
Anthracene	0.42		ug/l	0.10	0.01	1
Fluoranthene	0.73		ug/l	0.10	0.02	1
Pyrene	0.55		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.05		ug/l	0.05	0.02	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	79		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02
Client ID: HI11-MWS
Sample Location: B14

Date Collected: 02/08/24 10:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 17:33
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02 Date Collected: 02/08/24 10:20

Client ID: HI11-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	66		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-02
Client ID: HI11-MWS
Sample Location: B14

Date Collected: 02/08/24 10:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 17:12
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.18		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02	1
Acenaphthylene	0.02	J	ug/l	0.10	0.01	1
Acenaphthene	0.04	J	ug/l	0.10	0.01	1
Fluorene	0.02	J	ug/l	0.10	0.01	1
Pentachlorophenol	0.16		ug/l	0.10	0.01	1
Phenanthrene	0.06		ug/l	0.05	0.02	1
Anthracene	0.13		ug/l	0.10	0.01	1
Fluoranthene	0.04	J	ug/l	0.10	0.02	1
Pyrene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	ND		ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	77		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03
Client ID: TM04-PZM006
Sample Location: B14

Date Collected: 02/08/24 11:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 17:59
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	4.8	J	ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03 Date Collected: 02/08/24 11:20

Client ID: TM04-PZM006 Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	66		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-03
Client ID: TM04-PZM006
Sample Location: B14

Date Collected: 02/08/24 11:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 18:18
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.12		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Acenaphthylene	0.44		ug/l	0.10	0.01	1
Acenaphthene	0.16		ug/l	0.10	0.01	1
Fluorene	0.13		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.18		ug/l	0.05	0.02	1
Anthracene	0.16		ug/l	0.10	0.01	1
Fluoranthene	0.07	J	ug/l	0.10	0.02	1
Pyrene	0.07	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.04	J	ug/l	0.05	0.02	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.06		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.04	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	0.04	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.05	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	0.04	J	ug/l	0.05	0.01	1
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	107		10-120
4-Terphenyl-d14	100		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04
Client ID: HI12-MWS
Sample Location: B14

Date Collected: 02/08/24 14:55
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 18:25
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04 Date Collected: 02/08/24 14:55

Client ID: HI12-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	63		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-04
Client ID: HI12-MWS
Sample Location: B14

Date Collected: 02/08/24 14:55
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 17:45
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.09	J	ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	0.02	J	ug/l	0.10	0.01	1
Acenaphthene	0.02	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	0.09	J	ug/l	0.10	0.01	1
Phenanthrene	0.02	J	ug/l	0.05	0.02	1
Anthracene	0.04	J	ug/l	0.10	0.01	1
Fluoranthene	0.02	J	ug/l	0.10	0.02	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	0.02	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.01	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	63		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05
Client ID: HI13-MWS
Sample Location: B14

Date Collected: 02/08/24 15:45
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 18:50
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05 Date Collected: 02/08/24 15:45

Client ID: HI13-MWS Date Received: 02/08/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	76		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407289-05
Client ID: HI13-MWS
Sample Location: B14

Date Collected: 02/08/24 15:45
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/15/24 10:02
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.08	J	ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	0.07	J	ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.05	0.02	1
Anthracene	0.02	J	ug/l	0.10	0.01	1
Fluoranthene	0.02	J	ug/l	0.10	0.02	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	**37**	Q	41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1884134-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1884134-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/13/24 07:39
Analyst: LJG

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1884134-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	71		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/12/24 20:34
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/12/24 07:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1884140-1					
Naphthalene	0.39		ug/l	0.10	0.05
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02
Acenaphthylene	0.02	J	ug/l	0.10	0.01
Acenaphthene	0.02	J	ug/l	0.10	0.01
Fluorene	0.02	J	ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.05	0.02
Anthracene	ND		ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	64		10-120
4-Terphenyl-d14	75		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1884636-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1884636-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1884636-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	87		41-149

Project Name: B14-Q1 2024 **Lab Number:** L2407289

Project Number: 21010214 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 14:44
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02-05 Batch: WG1884642-1					
Naphthalene	ND		ug/l	0.10	0.05
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Acenaphthylene	ND		ug/l	0.10	0.01
Acenaphthene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.05	0.02
Anthracene	ND		ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	ND		ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	89		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1884134-2 WG1884134-3								
Benzaldehyde	66		68		40-140	3		30
Phenol	61		65		12-110	6		30
Bis(2-chloroethyl)ether	72		69		40-140	4		30
2-Chlorophenol	76		80		27-123	5		30
2-Methylphenol	76		79		30-130	4		30
Bis(2-chloroisopropyl)ether	67		68		40-140	1		30
Acetophenone	80		83		39-129	4		30
n-Nitrosodi-n-propylamine	74		80		29-132	8		30
3-Methylphenol/4-Methylphenol	86		89		30-130	3		30
Hexachloroethane	73		77		40-140	5		30
Nitrobenzene	75		81		40-140	8		30
Isophorone	78		81		40-140	4		30
2,4-Dimethylphenol	87		90		30-130	3		30
Bis(2-chloroethoxy)methane	78		81		40-140	4		30
2,4-Dichlorophenol	84		87		30-130	4		30
Naphthalene	76		75		40-140	1		30
4-Chloroaniline	73		75		40-140	3		30
Hexachlorobutadiene	77		71		40-140	8		30
Caprolactam	43		40		10-130	7		30
2-Methylnaphthalene	76		75		40-140	1		30
Hexachlorocyclopentadiene	93		85		40-140	9		30
1,2,4,5-Tetrachlorobenzene	80		80		2-134	0		30
2,4,6-Trichlorophenol	89		82		30-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1884134-2 WG1884134-3								
2,4,5-Trichlorophenol	91		88		30-130	3		30
Biphenyl	83		82		40-140	1		30
2-Chloronaphthalene	81		81		40-140	0		30
2-Nitroaniline	91		86		52-143	6		30
2,6-Dinitrotoluene	94		86		40-140	9		30
Acenaphthylene	84		83		45-123	1		30
Acenaphthene	79		81		37-111	3		30
2,4-Dinitrophenol	80		82		20-130	2		30
2,4-Dinitrotoluene	85		85		48-143	0		30
2,3,4,6-Tetrachlorophenol	92		86		54-145	7		30
Diethyl phthalate	83		80		40-140	4		30
Fluorene	80		78		40-140	3		30
4-Nitroaniline	85		83		51-143	2		30
NDPA/DPA	83		81		40-140	2		30
Hexachlorobenzene	86		82		40-140	5		30
Pentachlorophenol	91		84		9-103	8		30
Phenanthrene	86		82		40-140	5		30
Anthracene	88		84		40-140	5		30
Carbazole	91		86		55-144	6		30
Di-n-butylphthalate	88		88		40-140	0		30
Fluoranthene	89		87		40-140	2		30
Pyrene	90		88		26-127	2		30
3,3'-Dichlorobenzidine	78		73		40-140	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1 2024

Project Number: 21010214

Lab Number: L2407289

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1884134-2 WG1884134-3								
Benzo(a)anthracene	87		83		40-140	5		30
Chrysene	85		79		40-140	7		30
Bis(2-ethylhexyl)phthalate	91		89		40-140	2		30
Di-n-octylphthalate	86		84		40-140	2		30
Benzo(b)fluoranthene	87		83		40-140	5		30
Benzo(k)fluoranthene	92		84		40-140	9		30
Benzo(a)pyrene	88		82		40-140	7		30
Indeno(1,2,3-cd)pyrene	81		78		40-140	4		30
Dibenzo(a,h)anthracene	84		81		40-140	4		30
Benzo(ghi)perylene	83		80		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		75		21-120
Phenol-d6	57		63		10-120
Nitrobenzene-d5	76		77		23-120
2-Fluorobiphenyl	79		79		15-120
2,4,6-Tribromophenol	94		93		10-120
4-Terphenyl-d14	86		87		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1884140-2 WG1884140-3								
Naphthalene	72		70		40-140	3		40
2-Methylnaphthalene	78		75		40-140	4		40
Acenaphthylene	84		81		40-140	4		40
Acenaphthene	77		73		37-111	5		40
Fluorene	83		79		40-140	5		40
Pentachlorophenol	80		75		9-103	6		40
Phenanthrene	76		71		40-140	7		40
Anthracene	81		75		40-140	8		40
Fluoranthene	88		81		40-140	8		40
Pyrene	88		83		26-127	6		40
Benzo(a)anthracene	79		74		40-140	7		40
Chrysene	76		71		40-140	7		40
Benzo(b)fluoranthene	84		77		40-140	9		40
Benzo(k)fluoranthene	84		80		40-140	5		40
Benzo(a)pyrene	82		76		40-140	8		40
Indeno(1,2,3-cd)pyrene	82		75		40-140	9		40
Dibenzo(a,h)anthracene	86		80		40-140	7		40
Benzo(ghi)perylene	80		73		40-140	9		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1 2024

Project Number: 21010214

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Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1884140-2 WG1884140-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	66		67		21-120
Phenol-d6	60		61		10-120
Nitrobenzene-d5	87		87		23-120
2-Fluorobiphenyl	78		77		15-120
2,4,6-Tribromophenol	95		91		10-120
4-Terphenyl-d14	85		82		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1884636-2 WG1884636-3								
Benzaldehyde	61		57		40-140	7		30
Phenol	56		54		12-110	4		30
Bis(2-chloroethyl)ether	64		62		40-140	3		30
2-Chlorophenol	70		68		27-123	3		30
2-Methylphenol	70		70		30-130	0		30
Bis(2-chloroisopropyl)ether	64		60		40-140	6		30
Acetophenone	73		71		39-129	3		30
n-Nitrosodi-n-propylamine	73		65		29-132	12		30
3-Methylphenol/4-Methylphenol	75		74		30-130	1		30
Hexachloroethane	64		46		40-140	**33**	Q	30
Nitrobenzene	72		69		40-140	4		30
Isophorone	74		71		40-140	4		30
2,4-Dimethylphenol	79		75		30-130	5		30
Bis(2-chloroethoxy)methane	73		69		40-140	6		30
2,4-Dichlorophenol	81		77		30-130	5		30
Naphthalene	77		59		40-140	26		30
4-Chloroaniline	69		66		40-140	4		30
Hexachlorobutadiene	64		46		40-140	**33**	Q	30
Caprolactam	33		36		10-130	9		30
2-Methylnaphthalene	68		61		40-140	11		30
Hexachlorocyclopentadiene	49		46		40-140	6		30
1,2,4,5-Tetrachlorobenzene	71		61		2-134	15		30
2,4,6-Trichlorophenol	81		80		30-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1884636-2 WG1884636-3								
2,4,5-Trichlorophenol	86		83		30-130	4		30
Biphenyl	75		66		40-140	13		30
2-Chloronaphthalene	74		65		40-140	13		30
2-Nitroaniline	84		77		52-143	9		30
2,6-Dinitrotoluene	81		72		40-140	12		30
Acenaphthylene	76		70		45-123	8		30
Acenaphthene	71		65		37-111	9		30
2,4-Dinitrophenol	68		73		20-130	7		30
2,4-Dinitrotoluene	77		73		48-143	5		30
2,3,4,6-Tetrachlorophenol	81		74		54-145	9		30
Diethyl phthalate	74		70		40-140	6		30
Fluorene	69		66		40-140	4		30
4-Nitroaniline	70		71		51-143	1		30
NDPA/DPA	71		70		40-140	1		30
Hexachlorobenzene	75		67		40-140	11		30
Pentachlorophenol	80		73		9-103	9		30
Phenanthrene	75		66		40-140	13		30
Anthracene	75		68		40-140	10		30
Carbazole	78		69		55-144	12		30
Di-n-butylphthalate	82		73		40-140	12		30
Fluoranthene	76		70		40-140	8		30
Pyrene	79		70		26-127	12		30
3,3'-Dichlorobenzidine	62		59		40-140	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1 2024

Project Number: 21010214

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Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1884636-2 WG1884636-3								
Benzo(a)anthracene	74		69		40-140	7		30
Chrysene	75		67		40-140	11		30
Bis(2-ethylhexyl)phthalate	86		78		40-140	10		30
Di-n-octylphthalate	79		73		40-140	8		30
Benzo(b)fluoranthene	80		72		40-140	11		30
Benzo(k)fluoranthene	74		67		40-140	10		30
Benzo(a)pyrene	74		65		40-140	13		30
Indeno(1,2,3-cd)pyrene	72		66		40-140	9		30
Dibenzo(a,h)anthracene	74		67		40-140	10		30
Benzo(ghi)perylene	75		67		40-140	11		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	61		57		21-120
Phenol-d6	53		51		10-120
Nitrobenzene-d5	67		65		23-120
2-Fluorobiphenyl	67		62		15-120
2,4,6-Tribromophenol	80		78		10-120
4-Terphenyl-d14	74		65		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
Project Number: 21010214

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-05 Batch: WG1884642-2 WG1884642-3								
Naphthalene	67		56		40-140	18		40
2-Methylnaphthalene	60		59		40-140	2		40
Acenaphthylene	59		64		40-140	8		40
Acenaphthene	60		60		37-111	0		40
Fluorene	62		64		40-140	3		40
Pentachlorophenol	64		67		9-103	5		40
Phenanthrene	63		59		40-140	7		40
Anthracene	65		63		40-140	3		40
Fluoranthene	67		68		40-140	1		40
Pyrene	68		69		26-127	1		40
Benzo(a)anthracene	64		63		40-140	2		40
Chrysene	62		60		40-140	3		40
Benzo(b)fluoranthene	64		69		40-140	8		40
Benzo(k)fluoranthene	69		62		40-140	11		40
Benzo(a)pyrene	63		63		40-140	0		40
Indeno(1,2,3-cd)pyrene	73		68		40-140	7		40
Dibenzo(a,h)anthracene	75		71		40-140	5		40
Benzo(ghi)perylene	71		66		40-140	7		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1 2024
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-05 Batch: WG1884642-2 WG1884642-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	50		54		21-120
Phenol-d6	44		48		10-120
Nitrobenzene-d5	68		71		23-120
2-Fluorobiphenyl	58		59		15-120
2,4,6-Tribromophenol	67		78		10-120
4-Terphenyl-d14	64		66		41-149

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407289-01A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-01B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-01C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-01D	Amber 250ml unpreserved	A	12	12	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-01E	Amber 250ml unpreserved	A	12	12	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-02A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-02B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-02C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-02D	Amber 250ml unpreserved	A	12	12	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-02E	Amber 250ml unpreserved	A	12	12	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-03A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-03B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-03C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-03D	Amber 250ml unpreserved	A	9	9	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-03E	Amber 250ml unpreserved	A	9	9	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-04A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-04B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-04C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-04D	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-04E	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-05A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-05B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-05C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name: B14-Q1 2024
Project Number: 21010214

Lab Number: L2407289
Report Date: 02/15/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407289-05D	Amber 250ml unpreserved	A	9	9	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-05E	Amber 250ml unpreserved	A	9	9	4.7	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407289-06A	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-06B	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-06C	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407289-06D	Vial HCl preserved	A	NA		4.7	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
Project Number:	21010214	**Report Date:**	02/15/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
Project Number:	21010214	**Report Date:**	02/15/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	B14-Q1 2024	**Lab Number:**	L2407289
Project Number:	21010214	**Report Date:**	02/15/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 2/9/24

ALPHA Job #: L2407289

Client Information

Client: TPA

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: B14-Q1 2024

Project Location: B14

Project #: 2100214

Project Manager: Bob T.

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC 8260	SVOC 8270 SIM	Sample Specific Comments	TOTAL # BOTTLES
07289-01	HI10-MWS	2/7/24	1015	GW	TP	X	X		5
-02	HI11-MWS	2/8/24	1020			X	X		5
-03	TMW4-PZM0806		1120			X	X		5
-04	HI12-MWS		1455			X	X		5
-05	HI13-MWS		1545			X	X		5
-06	TB-WT-01					X			4

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	V	A
Preservative	H	A

Rec'd 2/9/24 0245
2/9/24 0245

Relinquished By:	Date/Time	Received By:	Date/Time
Anthony Green	2/8/24 1555	PACE	2/8/24 1555
	2/8/24 1800		2/8/24 1800
Anthony Green	2/9/24 0045	Anthony Green	FEB 08 2024 2221 2/9/24 0045

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

3

ANALYTICAL REPORT

Lab Number:	L2407989
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	B14 GW
Project Number:	21010214
Report Date:	02/20/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2407989-01	B24-002-MWS	WATER	B14	02/13/24 12:40	02/13/24
L2407989-02	TS03-PDP002	WATER	B14	02/13/24 13:40	02/13/24
L2407989-03	HI02R-PZM006	WATER	B14	02/13/24 14:55	02/13/24
L2407989-04	FIELD BLANK	WATER	B14	02/13/24 14:38	02/13/24
L2407989-05	HI07R-PZM005	WATER	B14	02/13/24 15:45	02/13/24
L2407989-06	TB-WT-01	WATER	B14	02/13/24 00:00	02/13/24

Project Name:	B14 GW	**Lab Number:**	L2407989
Project Number:	21010214	**Report Date:**	02/20/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics

The WG1886264-4/-5 MS/MSD recoveries, performed on L2407989-03, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) due to the concentration of this compound in the MS/MSD falling below the reported detection limit.

Semivolatile Organics by SIM

L2407989-04: The Field Blank has a result for Naphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Pentachlorophenol, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene and Benzo(b)fluoranthene present above the reporting limit; however, re-extraction achieved similar results. The results of both extractions are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Caitlin Walukevich

Title: Technical Director/Representative Date: 02/20/24

ORGANICS

VOLATILES

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01
Client ID: B24-002-MWS
Sample Location: B14

Date Collected: 02/13/24 12:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 12:17
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.6	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	10		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	13		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01
Client ID: B24-002-MWS
Sample Location: B14
Date Collected: 02/13/24 12:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	11		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	5.9		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01
Client ID: B24-002-MWS
Sample Location: B14

Date Collected: 02/13/24 12:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 12:17
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02
Client ID: TS03-PDP002
Sample Location: B14

Date Collected: 02/13/24 13:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 12:41
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02
Client ID: TS03-PDP002
Sample Location: B14
Date Collected: 02/13/24 13:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	106		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02
Client ID: TS03-PDP002
Sample Location: B14

Date Collected: 02/13/24 13:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 12:41
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03
Client ID: HI02R-PZM006
Sample Location: B14

Date Collected: 02/13/24 14:55
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/17/24 11:42
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03
Client ID: HI02R-PZM006
Sample Location: B14
Date Collected: 02/13/24 14:55
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	115		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03
Client ID: HI02R-PZM006
Sample Location: B14
Date Collected: 02/13/24 14:55
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/17/24 11:42
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	91		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04
Client ID: FIELD BLANK
Sample Location: B14

Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 11:29
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04
Client ID: FIELD BLANK
Sample Location: B14
Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	112		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04
Client ID: FIELD BLANK
Sample Location: B14
Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 11:29
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05
Client ID: HI07R-PZM005
Sample Location: B14
Date Collected: 02/13/24 15:45
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 13:05
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.7	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	1.5		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	0.87		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05
Client ID: HI07R-PZM005
Sample Location: B14
Date Collected: 02/13/24 15:45
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	0.70	J	ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	0.70	J	ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	111		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05
Client ID: HI07R-PZM005
Sample Location: B14
Date Collected: 02/13/24 15:45
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 13:05
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
4-Bromofluorobenzene	91		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-06
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/13/24 00:00
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 11:53
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-06
Client ID: TB-WT-01
Sample Location: B14
Date Collected: 02/13/24 00:00
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-06
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/13/24 00:00
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 11:53
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 05:55
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06 Batch: WG1886703-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 05:55
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06 Batch: WG1886703-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 05:55
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06 Batch: WG1886703-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/16/24 05:55
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02,04-06 Batch: WG1886708-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	94		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/17/24 10:55
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1886728-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/17/24 10:55
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1886728-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/17/24 10:55
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1886728-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	111		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/17/24 10:55
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 03 Batch: WG1886731-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	94		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1886703-3 WG1886703-4								
Dichlorodifluoromethane	85		81		36-147	5		20
Chloromethane	100		99		64-130	1		20
Vinyl chloride	120		110		55-140	9		20
Bromomethane	110		110		39-139	0		20
Chloroethane	120		110		55-138	9		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	100		98		61-145	2		20
Carbon disulfide	100		100		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
Methylene chloride	100		98		70-130	2		20
Acetone	100		100		58-148	0		20
trans-1,2-Dichloroethene	100		96		70-130	4		20
Methyl Acetate	93		88		70-130	6		20
Methyl tert butyl ether	88		89		63-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	97		97		70-130	0		20
Cyclohexane	100		100		70-130	0		20
Chloroform	94		93		70-130	1		20
Carbon tetrachloride	100		100		63-132	0		20
1,1,1-Trichloroethane	99		97		67-130	2		20
2-Butanone	88		100		63-138	13		20
Benzene	98		100		70-130	2		20
1,2-Dichloroethane	100		90		70-130	11		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1886703-3 WG1886703-4								
Trichloroethene	94		96		70-130	2		20
1,2-Dichloropropane	96		99		70-130	3		20
Bromodichloromethane	89		99		67-130	11		20
cis-1,3-Dichloropropene	96		96		70-130	0		20
Toluene	94		97		70-130	3		20
Tetrachloroethene	95		100		70-130	5		20
4-Methyl-2-pentanone	74		82		59-130	10		20
trans-1,3-Dichloropropene	81		86		70-130	6		20
1,1,2-Trichloroethane	90		96		70-130	6		20
Dibromochloromethane	88		92		63-130	4		20
1,2-Dibromoethane	88		96		70-130	9		20
2-Hexanone	77		84		57-130	9		20
Chlorobenzene	94		97		75-130	3		20
Ethylbenzene	94		99		70-130	5		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		100		70-130	5		20
Styrene	95		100		70-130	5		20
Bromoform	79		81		54-136	3		20
Isopropylbenzene	92		97		70-130	5		20
1,1,2,2-Tetrachloroethane	85		93		67-130	9		20
1,3-Dichlorobenzene	90		95		70-130	5		20
1,4-Dichlorobenzene	92		96		70-130	4		20
1,2-Dichlorobenzene	91		95		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW

Project Number: 21010214

Lab Number: L2407989

Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1886703-3 WG1886703-4								
1,2-Dibromo-3-chloropropane	76		82		41-144	8		20
1,2,4-Trichlorobenzene	89		92		70-130	3		20
1,2,3-Trichlorobenzene	90		92		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		97		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	95		97		70-130
Dibromofluoromethane	107		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1886708-3 WG1886708-4								
1,1,2,2-Tetrachloroethane	99		102		70-130	3		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
4-Bromofluorobenzene	93		94		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1886728-3 WG1886728-4								
Dichlorodifluoromethane	80		82		36-147	2		20
Chloromethane	100		100		64-130	0		20
Vinyl chloride	120		120		55-140	0		20
Bromomethane	120		120		39-139	0		20
Chloroethane	120		120		55-138	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	98		100		61-145	2		20
Carbon disulfide	100		100		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
Methylene chloride	99		100		70-130	1		20
Acetone	100		100		58-148	0		20
trans-1,2-Dichloroethene	97		100		70-130	3		20
Methyl Acetate	94		94		70-130	0		20
Methyl tert butyl ether	84		87		63-130	4		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Cyclohexane	100		110		70-130	10		20
Chloroform	96		97		70-130	1		20
Carbon tetrachloride	100		100		63-132	0		20
1,1,1-Trichloroethane	98		98		67-130	0		20
2-Butanone	81		98		63-138	19		20
Benzene	99		100		70-130	1		20
1,2-Dichloroethane	92		95		70-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1886728-3 WG1886728-4								
Trichloroethene	96		97		70-130	1		20
1,2-Dichloropropane	100		100		70-130	0		20
Bromodichloromethane	99		94		67-130	5		20
cis-1,3-Dichloropropene	93		95		70-130	2		20
Toluene	99		96		70-130	3		20
Tetrachloroethene	98		97		70-130	1		20
4-Methyl-2-pentanone	76		74		59-130	3		20
trans-1,3-Dichloropropene	81		80		70-130	1		20
1,1,2-Trichloroethane	99		94		70-130	5		20
Dibromochloromethane	92		90		63-130	2		20
1,2-Dibromoethane	95		92		70-130	3		20
2-Hexanone	75		73		57-130	3		20
Chlorobenzene	99		97		75-130	2		20
Ethylbenzene	100		96		70-130	4		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		95		70-130	5		20
Styrene	100		95		70-130	5		20
Bromoform	82		81		54-136	1		20
Isopropylbenzene	95		94		70-130	1		20
1,1,2,2-Tetrachloroethane	93		92		67-130	1		20
1,3-Dichlorobenzene	96		95		70-130	1		20
1,4-Dichlorobenzene	96		94		70-130	2		20
1,2-Dichlorobenzene	95		94		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1886728-3 WG1886728-4								
1,2-Dibromo-3-chloropropane	81		80		41-144	1		20
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,2,3-Trichlorobenzene	91		92		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		101		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	100		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 Batch: WG1886731-3 WG1886731-4								
1,1,2,2-Tetrachloroethane	107		102		70-130	5		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		101		70-130
4-Bromofluorobenzene	96		94		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW

Project Number: 21010214

Lab Number: L2407989

Report Date: 02/20/24

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1886728-6 WG1886728-7 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
Dichlorodifluoromethane	ND	10	9.0	90		9.2	92		36-147	2		20
Chloromethane	ND	10	11	110		11	110		64-130	0		20
Vinyl chloride	ND	10	13	130		13	130		55-140	0		20
Bromomethane	ND	10	9.3	93		10	100		39-139	7		20
Chloroethane	ND	10	14	**140**	Q	14	**140**	Q	55-138	0		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,1-Dichloroethene	ND	10	10	100		11	110		61-145	10		20
Carbon disulfide	ND	10	11	110		11	110		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	11	110		11	110		70-130	0		20
Methylene chloride	ND	10	9.9	99		10	100		70-130	1		20
Acetone	ND	10	11	110		10	100		58-148	10		20
trans-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Methyl Acetate	ND	10	8.8	88		8.8	88		70-130	0		20
Methyl tert butyl ether	ND	10	7.8	78		7.9	79		63-130	1		20
1,1-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
cis-1,2-Dichloroethene	ND	10	9.9	99		10	100		70-130	1		20
Cyclohexane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	9.8	98		9.9	99		70-130	1		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
2-Butanone	ND	10	9.4	94		8.0	80		63-138	16		20
Benzene	ND	10	10	100		10	100		70-130	0		20
1,2-Dichloroethane	ND	10	10	100		9.1	91		70-130	9		20

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1886728-6 WG1886728-7 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
Trichloroethene	ND	10	9.7	97		9.6	96		70-130	1		20
1,2-Dichloropropane	ND	10	9.7	97		10	100		70-130	3		20
Bromodichloromethane	ND	10	9.7	97		9.8	98		67-130	1		20
cis-1,3-Dichloropropene	ND	10	8.5	85		8.7	87		70-130	2		20
Toluene	ND	10	9.7	97		9.9	99		70-130	2		20
Tetrachloroethene	ND	10	9.7	97		10	100		70-130	3		20
4-Methyl-2-pentanone	ND	10	6.8	68		7.1	71		59-130	4		20
trans-1,3-Dichloropropene	ND	10	7.3	73		7.7	77		70-130	5		20
1,1,2-Trichloroethane	ND	10	9.2	92		9.4	94		70-130	2		20
Dibromochloromethane	ND	10	8.6	86		8.9	89		63-130	3		20
1,2-Dibromoethane	ND	10	8.8	88		9.2	92		70-130	4		20
2-Hexanone	ND	10	7.2	72		7.5	75		57-130	4		20
Chlorobenzene	ND	10	9.5	95		9.8	98		75-130	3		20
Ethylbenzene	ND	10	9.7	97		10	100		70-130	3		20
p/m-Xylene	ND	20	20	100		21	105		70-130	5		20
o-Xylene	ND	20	19	95		20	100		70-130	5		20
Styrene	ND	20	19	95		19	95		70-130	0		20
Bromoform	ND	10	7.4	74		7.6	76		54-136	3		20
Isopropylbenzene	ND	10	9.5	95		9.9	99		70-130	4		20
1,1,2,2-Tetrachloroethane	ND	10	8.9	89		9.0	90		67-130	1		20
1,3-Dichlorobenzene	ND	10	9.2	92		9.4	94		70-130	2		20
1,4-Dichlorobenzene	ND	10	9.2	92		9.4	94		70-130	2		20
1,2-Dichlorobenzene	ND	10	9.2	92		9.4	94		70-130	2		20

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1886728-6 WG1886728-7 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
1,2-Dibromo-3-chloropropane	ND	10	7.3	73		7.6	76		41-144	4		20
1,2,4-Trichlorobenzene	ND	10	8.5	85		8.9	89		70-130	5		20
1,2,3-Trichlorobenzene	ND	10	8.8	88		9.1	91		70-130	3		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		100		70-130
4-Bromofluorobenzene	92		92		70-130
Dibromofluoromethane	102		103		70-130
Toluene-d8	99		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1886731-6 WG1886731-7 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
1,1,2,2-Tetrachloroethane	ND	0.1	0.108	108		0.100	100		70-130	8		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		105		70-130
4-Bromofluorobenzene	91		91		70-130

SEMIVOLATILES

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01
Client ID: B24-002-MWS
Sample Location: B14

Date Collected: 02/13/24 12:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/18/24 23:32
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2407989

Project Number: 21010214 **Report Date:** 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01 Date Collected: 02/13/24 12:40

Client ID: B24-002-MWS Date Received: 02/13/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	75		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-01
Client ID: B24-002-MWS
Sample Location: B14

Date Collected: 02/13/24 12:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 13:22
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.25		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Acenaphthylene	0.01	J	ug/l	0.10	0.01	1
Acenaphthene	0.02	J	ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.06		ug/l	0.05	0.02	1
Anthracene	0.02	J	ug/l	0.10	0.01	1
Fluoranthene	0.07	J	ug/l	0.10	0.02	1
Pyrene	0.09	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	62		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02
Client ID: TS03-PDP002
Sample Location: B14

Date Collected: 02/13/24 13:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/18/24 23:58
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2407989

Project Number: 21010214 **Report Date:** 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02 Date Collected: 02/13/24 13:40

Client ID: TS03-PDP002 Date Received: 02/13/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	55		23-120
2-Fluorobiphenyl	52		15-120
2,4,6-Tribromophenol	45		10-120
4-Terphenyl-d14	62		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-02
Client ID: TS03-PDP002
Sample Location: B14

Date Collected: 02/13/24 13:40
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 13:39
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.09	J	ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.05	0.02	1
Anthracene	ND		ug/l	0.10	0.01	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Pyrene	ND		ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	ND		ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	48		15-120
2,4,6-Tribromophenol	45		10-120
4-Terphenyl-d14	43		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03
Client ID: HI02R-PZM006
Sample Location: B14

Date Collected: 02/13/24 14:55
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/19/24 00:25
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	1.0	J	ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	1.6	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2407989

Project Number: 21010214 **Report Date:** 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03 Date Collected: 02/13/24 14:55

Client ID: HI02R-PZM006 Date Received: 02/13/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	0.42	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.60	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	55		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	61		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-03
Client ID: HI02R-PZM006
Sample Location: B14

Date Collected: 02/13/24 14:55
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 14:45
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	1.5		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.28		ug/l	0.10	0.02	1
Acenaphthylene	0.05	J	ug/l	0.10	0.01	1
Acenaphthene	0.50		ug/l	0.10	0.01	1
Fluorene	0.37		ug/l	0.10	0.01	1
Pentachlorophenol	0.07	J	ug/l	0.10	0.01	1
Phenanthrene	0.44		ug/l	0.05	0.02	1
Anthracene	0.13		ug/l	0.10	0.01	1
Fluoranthene	0.11		ug/l	0.10	0.02	1
Pyrene	0.08	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	ND		ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	50		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	42		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04
Client ID: FIELD BLANK
Sample Location: B14

Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/19/24 11:51
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	0.62	J	ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	0.72	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2407989

Project Number: 21010214 **Report Date:** 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04 Date Collected: 02/13/24 14:38

Client ID: FIELD BLANK Date Received: 02/13/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	0.86	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	5.2	J	ug/l	10	1.8	1
Phenanthrene	1.7	J	ug/l	2.0	0.33	1
Anthracene	0.40	J	ug/l	2.0	0.33	1
Carbazole	0.71	J	ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	1.1	J	ug/l	2.0	0.26	1
Pyrene	0.66	J	ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	67		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04
Client ID: FIELD BLANK
Sample Location: B14

Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 13:55
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.83		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.26		ug/l	0.10	0.02	1
Acenaphthylene	0.45		ug/l	0.10	0.01	1
Acenaphthene	0.44		ug/l	0.10	0.01	1
Fluorene	1.0		ug/l	0.10	0.01	1
Pentachlorophenol	3.0		ug/l	0.10	0.01	1
Phenanthrene	1.7		ug/l	0.05	0.02	1
Anthracene	0.41		ug/l	0.10	0.01	1
Fluoranthene	1.1		ug/l	0.10	0.02	1
Pyrene	0.71		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.13		ug/l	0.05	0.02	1
Chrysene	0.11		ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.10		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	0.07	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.05	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.05	0.01	1
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	53		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-04 RE
Client ID: FIELD BLANK
Sample Location: B14

Date Collected: 02/13/24 14:38
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/20/24 08:54
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/19/24 17:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.83		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	0.02	J	ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.02	J	ug/l	0.05	0.02	1
Anthracene	ND		ug/l	0.10	0.01	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Pyrene	ND		ug/l	0.10	0.02	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Chrysene	ND		ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	71		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05
Client ID: HI07R-PZM005
Sample Location: B14

Date Collected: 02/13/24 15:45
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/19/24 12:17
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2407989

Project Number: 21010214 **Report Date:** 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05 Date Collected: 02/13/24 15:45

Client ID: HI07R-PZM005 Date Received: 02/13/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	73		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

SAMPLE RESULTS

Lab ID: L2407989-05
Client ID: HI07R-PZM005
Sample Location: B14

Date Collected: 02/13/24 15:45
Date Received: 02/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 14:28
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.12		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02	1
Acenaphthylene	0.02	J	ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.08		ug/l	0.05	0.02	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Fluoranthene	0.11		ug/l	0.10	0.02	1
Pyrene	0.09	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.05		ug/l	0.05	0.02	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.07		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	0.05	J	ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	0.04	J	ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	66		10-120
4-Terphenyl-d14	61		41-149

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/18/24 18:43
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1886264-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/18/24 18:43
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1886264-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/18/24 18:43
Analyst: CMM

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1886264-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	66		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/18/24 12:16
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/17/24 07:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1886269-1					
Naphthalene	0.07	J	ug/l	0.10	0.05
2-Methylnaphthalene	0.08	J	ug/l	0.10	0.02
Acenaphthylene	ND		ug/l	0.10	0.01
Acenaphthene	0.01	J	ug/l	0.10	0.01
Fluorene	0.02	J	ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.05	0.02
Anthracene	ND		ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	ND		ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	48		41-149

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/20/24 08:04
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/19/24 17:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 04 Batch: WG1886954-1					
Naphthalene	0.08	J	ug/l	0.10	0.05
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02
Acenaphthylene	ND		ug/l	0.10	0.01
Acenaphthene	0.02	J	ug/l	0.10	0.01
Fluorene	0.03	J	ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.05	0.02
Anthracene	0.02	J	ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	ND		ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	64		10-120
4-Terphenyl-d14	66		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1886264-2 WG1886264-3								
Benzaldehyde	52		56		40-140	7		30
Phenol	53		55		12-110	4		30
Bis(2-chloroethyl)ether	59		62		40-140	5		30
2-Chlorophenol	65		70		27-123	7		30
2-Methylphenol	65		67		30-130	3		30
Bis(2-chloroisopropyl)ether	59		62		40-140	5		30
Acetophenone	66		70		39-129	6		30
n-Nitrosodi-n-propylamine	67		67		29-132	0		30
3-Methylphenol/4-Methylphenol	68		71		30-130	4		30
Hexachloroethane	58		62		40-140	7		30
Nitrobenzene	65		68		40-140	5		30
Isophorone	64		70		40-140	9		30
2,4-Dimethylphenol	80		62		30-130	25		30
Bis(2-chloroethoxy)methane	61		68		40-140	11		30
2,4-Dichlorophenol	67		70		30-130	4		30
Naphthalene	59		78		40-140	28		30
4-Chloroaniline	52		50		40-140	4		30
Hexachlorobutadiene	53		59		40-140	11		30
Caprolactam	34		41		10-130	19		30
2-Methylnaphthalene	59		72		40-140	20		30
Hexachlorocyclopentadiene	48		55		40-140	14		30
1,2,4,5-Tetrachlorobenzene	57		64		2-134	12		30
2,4,6-Trichlorophenol	67		71		30-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW

Project Number: 21010214

Lab Number: L2407989

Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1886264-2 WG1886264-3								
2,4,5-Trichlorophenol	70		79		30-130	12		30
Biphenyl	64		70		40-140	9		30
2-Chloronaphthalene	62		68		40-140	9		30
2-Nitroaniline	68		77		52-143	12		30
2,6-Dinitrotoluene	70		74		40-140	6		30
Acenaphthylene	60		70		45-123	15		30
Acenaphthene	67		71		37-111	6		30
2,4-Dinitrophenol	72		74		20-130	3		30
2,4-Dinitrotoluene	73		78		48-143	7		30
2,3,4,6-Tetrachlorophenol	74		77		54-145	4		30
Diethyl phthalate	67		72		40-140	7		30
Fluorene	67		71		40-140	6		30
4-Nitroaniline	62		67		51-143	8		30
NDPA/DPA	67		68		40-140	1		30
Hexachlorobenzene	69		72		40-140	4		30
Pentachlorophenol	75		71		9-103	5		30
Phenanthrene	71		77		40-140	8		30
Anthracene	70		77		40-140	10		30
Carbazole	75		78		55-144	4		30
Di-n-butylphthalate	75		82		40-140	9		30
Fluoranthene	72		78		40-140	8		30
Pyrene	74		78		26-127	5		30
3,3'-Dichlorobenzidine	49		50		40-140	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1886264-2 WG1886264-3								
Benzo(a)anthracene	70		78		40-140	11		30
Chrysene	69		74		40-140	7		30
Bis(2-ethylhexyl)phthalate	80		88		40-140	10		30
Di-n-octylphthalate	76		83		40-140	9		30
Benzo(b)fluoranthene	76		82		40-140	8		30
Benzo(k)fluoranthene	70		78		40-140	11		30
Benzo(a)pyrene	70		77		40-140	10		30
Indeno(1,2,3-cd)pyrene	67		72		40-140	7		30
Dibenzo(a,h)anthracene	70		76		40-140	8		30
Benzo(ghi)perylene	70		75		40-140	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		62		21-120
Phenol-d6	53		57		10-120
Nitrobenzene-d5	64		67		23-120
2-Fluorobiphenyl	60		64		15-120
2,4,6-Tribromophenol	81		83		10-120
4-Terphenyl-d14	69		76		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1886269-2 WG1886269-3								
Naphthalene	52		72		40-140	32		40
2-Methylnaphthalene	52		66		40-140	24		40
Acenaphthylene	51		60		40-140	16		40
Acenaphthene	58		65		37-111	11		40
Fluorene	58		66		40-140	13		40
Pentachlorophenol	65		66		9-103	2		40
Phenanthrene	59		68		40-140	14		40
Anthracene	60		68		40-140	13		40
Fluoranthene	56		62		40-140	10		40
Pyrene	55		61		26-127	10		40
Benzo(a)anthracene	74		84		40-140	13		40
Chrysene	66		74		40-140	11		40
Benzo(b)fluoranthene	64		72		40-140	12		40
Benzo(k)fluoranthene	62		70		40-140	12		40
Benzo(a)pyrene	60		68		40-140	13		40
Indeno(1,2,3-cd)pyrene	62		71		40-140	14		40
Dibenzo(a,h)anthracene	57		65		40-140	13		40
Benzo(ghi)perylene	59		67		40-140	13		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1886269-2 WG1886269-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	55		63		21-120
Phenol-d6	48		54		10-120
Nitrobenzene-d5	60		68		23-120
2-Fluorobiphenyl	51		56		15-120
2,4,6-Tribromophenol	67		74		10-120
4-Terphenyl-d14	44		49		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 04 Batch: WG1886954-2 WG1886954-3								
Naphthalene	62		66		40-140	6		40
2-Methylnaphthalene	68		69		40-140	1		40
Acenaphthylene	72		74		40-140	3		40
Acenaphthene	67		68		37-111	1		40
Fluorene	74		74		40-140	0		40
Pentachlorophenol	73		73		9-103	0		40
Phenanthrene	68		69		40-140	1		40
Anthracene	71		71		40-140	0		40
Fluoranthene	75		78		40-140	4		40
Pyrene	75		80		26-127	6		40
Benzo(a)anthracene	69		71		40-140	3		40
Chrysene	68		70		40-140	3		40
Benzo(b)fluoranthene	71		70		40-140	1		40
Benzo(k)fluoranthene	74		78		40-140	5		40
Benzo(a)pyrene	70		70		40-140	0		40
Indeno(1,2,3-cd)pyrene	72		72		40-140	0		40
Dibenzo(a,h)anthracene	75		76		40-140	1		40
Benzo(ghi)perylene	72		71		40-140	1		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 04 Batch: WG1886954-2 WG1886954-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59		60		21-120
Phenol-d6	53		54		10-120
Nitrobenzene-d5	75		80		23-120
2-Fluorobiphenyl	71		72		15-120
2,4,6-Tribromophenol	91		97		10-120
4-Terphenyl-d14	75		77		41-149

Matrix Spike Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1886264-4 WG1886264-5 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
Benzaldehyde	ND	18.2	9.0	50		9.0	50		40-140	0		30
Phenol	ND	18.2	9.2	51		9.9	54		12-110	7		30
Bis(2-chloroethyl)ether	ND	18.2	10	55		11	61		40-140	10		30
2-Chlorophenol	ND	18.2	11	61		11	61		27-123	0		30
2-Methylphenol	ND	18.2	11	61		13	72		30-130	17		30
Bis(2-chloroisopropyl)ether	ND	18.2	10	55		10	55		40-140	0		30
Acetophenone	ND	18.2	12	66		12	66		39-129	0		30
n-Nitrosodi-n-propylamine	ND	18.2	12	66		12	66		29-132	0		30
3-Methylphenol/4-Methylphenol	1.0J	18.2	13	72		14	77		30-130	7		30
Hexachloroethane	ND	18.2	9.1	50		9.0	50		40-140	1		30
Nitrobenzene	ND	18.2	11	61		12	66		40-140	9		30
Isophorone	ND	18.2	12	66		13	72		40-140	8		30
2,4-Dimethylphenol	ND	18.2	15	83		20	110		30-130	29		30
Bis(2-chloroethoxy)methane	ND	18.2	11	61		12	66		40-140	9		30
2,4-Dichlorophenol	ND	18.2	13	72		13	72		30-130	0		30
Naphthalene	1.6J	18.2	12	66		12	66		40-140	0		30
4-Chloroaniline	ND	18.2	10	55		4.0	**22**	Q	40-140	**86**	Q	30
Hexachlorobutadiene	ND	18.2	8.7	48		8.9	49		40-140	2		30
Caprolactam	ND	18.2	7.6J	42		7.0J	39		10-130	8		30
2-Methylnaphthalene	ND	18.2	10	55		10	55		40-140	0		30
Hexachlorocyclopentadiene	ND	18.2	8.1J	45		8.8J	48		40-140	8		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	10	55		11	61		2-134	10		30
2,4,6-Trichlorophenol	ND	18.2	13	72		13	72		30-130	0		30

Matrix Spike Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1886264-4 WG1886264-5 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
2,4,5-Trichlorophenol	ND	18.2	13	72		14	77		30-130	7		30
Biphenyl	ND	18.2	11	61		12	66		40-140	9		30
2-Chloronaphthalene	ND	18.2	10	55		11	61		40-140	10		30
2-Nitroaniline	ND	18.2	13	72		14	77		52-143	7		30
2,6-Dinitrotoluene	ND	18.2	12	66		13	72		40-140	8		30
Acenaphthylene	ND	18.2	12	66		12	66		45-123	0		30
Acenaphthene	ND	18.2	12	66		12	66		37-111	0		30
2,4-Dinitrophenol	ND	18.2	13J	72		15J	83		20-130	14		30
2,4-Dinitrotoluene	ND	18.2	12	66		14	77		48-143	15		30
2,3,4,6-Tetrachlorophenol	ND	18.2	13	72		13	72		54-145	0		30
Diethyl phthalate	ND	18.2	12	66		12	66		40-140	0		30
Fluorene	0.42J	18.2	11	61		12	66		40-140	9		30
4-Nitroaniline	ND	18.2	8.9	**49**	Q	7.9	**43**	Q	51-143	12		30
NDPA/DPA	ND	18.2	11	61		12	66		40-140	9		30
Hexachlorobenzene	ND	18.2	12	66		12	66		40-140	0		30
Pentachlorophenol	ND	18.2	14	77		14	77		9-103	0		30
Phenanthrene	0.60J	18.2	12	66		12	66		40-140	0		30
Anthracene	ND	18.2	12	66		13	72		40-140	8		30
Carbazole	ND	18.2	13	72		13	72		55-144	0		30
Di-n-butylphthalate	ND	18.2	13	72		14	77		40-140	7		30
Fluoranthene	ND	18.2	12	66		12	66		40-140	0		30
Pyrene	ND	18.2	12	66		12	66		26-127	0		30
3,3'-Dichlorobenzidine	ND	18.2	ND	**0**	Q	ND	**0**	Q	40-140	NC		30

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1886264-4 WG1886264-5 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
Benzo(a)anthracene	ND	18.2	12	66		13	72		40-140	8		30
Chrysene	ND	18.2	12	66		12	66		40-140	0		30
Bis(2-ethylhexyl)phthalate	ND	18.2	16	88		25	140		40-140	**44**	Q	30
Di-n-octylphthalate	ND	18.2	15	83		16	88		40-140	6		30
Benzo(b)fluoranthene	ND	18.2	13	72		13	72		40-140	0		30
Benzo(k)fluoranthene	ND	18.2	13	72		13	72		40-140	0		30
Benzo(a)pyrene	ND	18.2	12	66		13	72		40-140	8		30
Indeno(1,2,3-cd)pyrene	ND	18.2	13	72		12	66		40-140	8		30
Dibenzo(a,h)anthracene	ND	18.2	12	66		12	66		40-140	0		30
Benzo(ghi)perylene	ND	18.2	13	72		13	72		40-140	0		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	76		79		10-120
2-Fluorobiphenyl	58		60		15-120
2-Fluorophenol	57		58		21-120
4-Terphenyl-d14	63		67		41-149
Nitrobenzene-d5	64		63		23-120
Phenol-d6	51		52		10-120

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2407989
Report Date: 02/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1886269-4 WG1886269-5 QC Sample: L2407989-03 Client ID: HI02R-PZM006												
Naphthalene	1.5	18.2	12	58		11	52		40-140	9		40
2-Methylnaphthalene	0.28	18.2	10	53		10	53		40-140	0		40
Acenaphthylene	0.05J	18.2	11	61		10	55		40-140	10		40
Acenaphthene	0.50	18.2	12	63		12	63		37-111	0		40
Fluorene	0.37	18.2	12	64		12	64		40-140	0		40
Pentachlorophenol	0.07J	18.2	14	77		13	72		9-103	7		40
Phenanthrene	0.44	18.2	13	69		12	64		40-140	8		40
Anthracene	0.13	18.2	12	65		12	65		40-140	0		40
Fluoranthene	0.11	18.2	11	60		10	54		40-140	10		40
Pyrene	0.08J	18.2	10	55		10	55		26-127	0		40
Benzo(a)anthracene	ND	18.2	15	83		14	77		40-140	7		40
Chrysene	ND	18.2	13	72		13	72		40-140	0		40
Benzo(b)fluoranthene	0.02J	18.2	12	66		12	66		40-140	0		40
Benzo(k)fluoranthene	0.01J	18.2	12	66		12	66		40-140	0		40
Benzo(a)pyrene	ND	18.2	12	66		12	66		40-140	0		40
Indeno(1,2,3-cd)pyrene	ND	18.2	14	77		12	66		40-140	15		40
Dibenzo(a,h)anthracene	ND	18.2	13	72		12	66		40-140	8		40
Benzo(ghi)perylene	ND	18.2	13	72		12	66		40-140	8		40

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	75		69		10-120
2-Fluorobiphenyl	56		52		15-120

Matrix Spike Analysis

Batch Quality Control

Project Name: B14 GW

Project Number: 21010214

Lab Number: L2407989

Report Date: 02/20/24

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1886269-4 WG1886269-5 QC Sample: L2407989-03 Client ID: HI02R-PZM006												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
2-Fluorophenol	63		61		21-120
4-Terphenyl-d14	45		44		41-149
Nitrobenzene-d5	72		68		23-120
Phenol-d6	55		52		10-120

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407989-01A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-01B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-01C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-01D	Amber 250ml unpreserved	A	12	12	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-01E	Amber 250ml unpreserved	A	12	12	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-02A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-02B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-02C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-02D	Amber 250ml unpreserved	A	7	7	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-02E	Amber 250ml unpreserved	A	7	7	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-03A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03A1	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03A2	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03B1	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03B2	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03C1	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03C2	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-03D	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-03D1	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-03D2	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-03E	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)

*Values in parentheses indicate holding time in days

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2407989
Report Date: 02/20/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407989-03E1	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-03E2	Amber 250ml unpreserved	A	9	9	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-04A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-04B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-04C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-04D	Amber 250ml unpreserved	A	7	7	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-04E	Amber 250ml unpreserved	A	7	7	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-05A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-05B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-05C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-05D	Amber 250ml unpreserved	A	12	12	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-05E	Amber 250ml unpreserved	A	12	12	4.9	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407989-06A	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-06B	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-06C	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407989-06D	Vial HCl preserved	A	NA		4.9	Y	Absent		PA-8260-SIM(14),PA-8260(14)

Container Comments

L2407989-04D	cap received cracked, sample is intact

*Values in parentheses indicate holding time in days

Project Name:	B14 GW	**Lab Number:**	L2407989
Project Number:	21010214	**Report Date:**	02/20/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 GW	**Lab Number:**	L2407989
Project Number:	21010214	**Report Date:**	02/20/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 GW	**Lab Number:**	L2407989
Project Number:	21010214	**Report Date:**	02/20/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	B14 GW	**Lab Number:**	L2407989
Project Number:	21010214	**Report Date:**	02/20/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 2/14/24

ALPHA Job #: L2407989

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508 822 9300 FAX: 508 822 3288

Client Information

Client: TPA

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: B14-GW

Project Location: B14

Project #: 2101214

Project Manager: BOB T.

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC 8260	ANALYSIS: SVOC 8270 SIM	SAMPLE HANDLING / Sample Specific Comments	TOTAL # BOTTLES
07989-01	B24-002-MW5	2/13/24	1240	GW	TP	X	X	X PH 7 10	5
02	TS03-PDP002		1340			X	X		5
03	HI02R-PZM006		1455			X	X	MS-MSD	15
04	Field BLANK		1438			X	X		5
05	HI07R-PZM005		1545			X	X	PH 7 10	5
06	TB-LT-01	—	—			X			4

Filtration: ☐ Done ☐ Not needed ☐ Lab to do

Preservation: ☐ Lab to do (Please specify below:)

Container Type	V	A
Preservative	B	A

2/14/24 0145

2/14/24 0145

Relinquished By:	Date/Time	Received By:	Date/Time
	1555 2/13/24		2/13/24 1555
	2/13/24 1800		2/13/24 1800
	2/13/24 2100	Anthony Green	FEB 13 2024 2100
Anthony Green	2/13/24 2335		2/13/24 2335

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ANALYTICAL REPORT

Lab Number:	L2408968
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	B14 GW
Project Number:	21010214
Report Date:	02/26/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2408968-01	HI22-MWS	WATER	B14	02/16/24 15:25	02/19/24
L2408968-02	HI14-MWS	WATER	B14	02/16/24 11:40	02/19/24
L2408968-03	TB-WT-01	WATER	B14	02/16/24 00:00	02/19/24

Project Name:	B14 GW	**Lab Number:**	L2408968
Project Number:	21010214	**Report Date:**	02/26/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 02/26/24

ORGANICS

VOLATILES

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01
Client ID: HI22-MWS
Sample Location: B14

Date Collected: 02/16/24 15:25
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/20/24 09:37
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	1.1	J	ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.44	J	ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	0.23	J	ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01
Client ID: HI22-MWS
Sample Location: B14
Date Collected: 02/16/24 15:25
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	107		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01
Client ID: HI22-MWS
Sample Location: B14

Date Collected: 02/16/24 15:25
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/20/24 09:37
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02
Client ID: HI14-MWS
Sample Location: B14

Date Collected: 02/16/24 11:40
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/20/24 10:01
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02
Client ID: HI14-MWS
Sample Location: B14
Date Collected: 02/16/24 11:40
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	108		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02
Client ID: HI14-MWS
Sample Location: B14

Date Collected: 02/16/24 11:40
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/20/24 10:01
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-03
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/16/24 00:00
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/20/24 09:14
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-03
Client ID: TB-WT-01
Sample Location: B14
Date Collected: 02/16/24 00:00
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-03
Client ID: TB-WT-01
Sample Location: B14

Date Collected: 02/16/24 00:00
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/20/24 09:14
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	93		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/20/24 05:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1887160-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/20/24 05:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1887160-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/20/24 05:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1887160-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	105		70-130

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/20/24 05:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1887162-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
4-Bromofluorobenzene	93		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1887160-3 WG1887160-4								
Dichlorodifluoromethane	81		80		36-147	1		20
Chloromethane	100		100		64-130	0		20
Vinyl chloride	120		120		55-140	0		20
Bromomethane	95		99		39-139	4		20
Chloroethane	130		120		55-138	8		20
Trichlorofluoromethane	99		99		62-150	0		20
1,1-Dichloroethene	97		100		61-145	3		20
Carbon disulfide	100		100		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
Methylene chloride	100		100		70-130	0		20
Acetone	95		100		58-148	5		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Methyl Acetate	100		99		70-130	1		20
Methyl tert butyl ether	86		85		63-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Cyclohexane	100		99		70-130	1		20
Chloroform	98		100		70-130	2		20
Carbon tetrachloride	100		100		63-132	0		20
1,1,1-Trichloroethane	98		97		67-130	1		20
2-Butanone	100		86		63-138	15		20
Benzene	110		100		70-130	10		20
1,2-Dichloroethane	110		110		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1887160-3 WG1887160-4								
Trichloroethene	99		96		70-130	3		20
1,2-Dichloropropane	100		100		70-130	0		20
Bromodichloromethane	100		100		67-130	0		20
cis-1,3-Dichloropropene	97		98		70-130	1		20
Toluene	98		99		70-130	1		20
Tetrachloroethene	97		97		70-130	0		20
4-Methyl-2-pentanone	78		77		59-130	1		20
trans-1,3-Dichloropropene	83		84		70-130	1		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Dibromochloromethane	95		95		63-130	0		20
1,2-Dibromoethane	96		96		70-130	0		20
2-Hexanone	79		79		57-130	0		20
Chlorobenzene	99		100		75-130	1		20
Ethylbenzene	99		99		70-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Bromoform	83		81		54-136	2		20
Isopropylbenzene	96		94		70-130	2		20
1,1,2,2-Tetrachloroethane	96		98		67-130	2		20
1,3-Dichlorobenzene	97		98		70-130	1		20
1,4-Dichlorobenzene	96		97		70-130	1		20
1,2-Dichlorobenzene	96		96		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1887160-3 WG1887160-4								
1,2-Dibromo-3-chloropropane	83		84		41-144	1		20
1,2,4-Trichlorobenzene	93		92		70-130	1		20
1,2,3-Trichlorobenzene	94		94		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		99		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	92		92		70-130
Dibromofluoromethane	102		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1887162-3 WG1887162-4								
1,1,2,2-Tetrachloroethane	103		112		70-130	8		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		103		70-130
4-Bromofluorobenzene	93		93		70-130

SEMIVOLATILES

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01
Client ID: HI22-MWS
Sample Location: B14

Date Collected: 02/16/24 15:25
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/23/24 16:36
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2408968

Project Number: 21010214 **Report Date:** 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01 Date Collected: 02/16/24 15:25

Client ID: HI22-MWS Date Received: 02/19/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	67		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-01
Client ID: HI22-MWS
Sample Location: B14

Date Collected: 02/16/24 15:25
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/24/24 21:54
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.27		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Acenaphthylene	0.03	J	ug/l	0.10	0.01	1
Acenaphthene	0.02	J	ug/l	0.10	0.01	1
Fluorene	0.05	J	ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.05	0.02	1
Anthracene	ND		ug/l	0.10	0.01	1
Fluoranthene	0.05	J	ug/l	0.10	0.02	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02	1
Chrysene	0.03	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	117		10-120
4-Terphenyl-d14	91		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02
Client ID: HI14-MWS
Sample Location: B14

Date Collected: 02/16/24 11:40
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/23/24 17:03
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14 GW **Lab Number:** L2408968

Project Number: 21010214 **Report Date:** 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02 Date Collected: 02/16/24 11:40

Client ID: HI14-MWS Date Received: 02/19/24

Sample Location: B14 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	1.0	J	ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	0.41	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.44	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	77		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408968-02
Client ID: HI14-MWS
Sample Location: B14

Date Collected: 02/16/24 11:40
Date Received: 02/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/24/24 22:11
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	0.16		ug/l	0.10	0.05	1
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02	1
Acenaphthylene	0.09	J	ug/l	0.10	0.01	1
Acenaphthene	0.98		ug/l	0.10	0.01	1
Fluorene	0.46		ug/l	0.10	0.01	1
Pentachlorophenol	ND		ug/l	0.10	0.01	1
Phenanthrene	0.37		ug/l	0.05	0.02	1
Anthracene	0.14		ug/l	0.10	0.01	1
Fluoranthene	0.21		ug/l	0.10	0.02	1
Pyrene	0.14		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	56		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	89		15-120
2,4,6-Tribromophenol	**126**	Q	10-120
4-Terphenyl-d14	103		41-149

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/23/24 16:10
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1888201-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/23/24 16:10
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1888201-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/23/24 16:10
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1888201-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	84		41-149

Project Name: B14 GW
Project Number: 21010214
Lab Number: L2408968
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/24/24 16:42
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 02/22/24 15:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1888202-1					
Naphthalene	0.08	J	ug/l	0.10	0.05
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02
Acenaphthylene	ND		ug/l	0.10	0.01
Acenaphthene	0.02	J	ug/l	0.10	0.01
Fluorene	0.01	J	ug/l	0.10	0.01
Pentachlorophenol	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.05	0.02
Anthracene	ND		ug/l	0.10	0.01
Fluoranthene	ND		ug/l	0.10	0.02
Pyrene	ND		ug/l	0.10	0.02
Benzo(a)anthracene	ND		ug/l	0.05	0.02
Chrysene	ND		ug/l	0.10	0.01
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	96		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	80		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW

Project Number: 21010214

Lab Number: L2408968

Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1888201-2 WG1888201-3								
Benzaldehyde	70		62		40-140	12		30
Phenol	63		54		12-110	15		30
Bis(2-chloroethyl)ether	76		62		40-140	20		30
2-Chlorophenol	78		70		27-123	11		30
2-Methylphenol	73		60		30-130	20		30
Bis(2-chloroisopropyl)ether	77		58		40-140	28		30
Acetophenone	82		77		39-129	6		30
n-Nitrosodi-n-propylamine	84		69		29-132	20		30
3-Methylphenol/4-Methylphenol	78		73		30-130	7		30
Hexachloroethane	78		74		40-140	5		30
Nitrobenzene	82		73		40-140	12		30
Isophorone	84		87		40-140	4		30
2,4-Dimethylphenol	72		58		30-130	22		30
Bis(2-chloroethoxy)methane	80		83		40-140	4		30
2,4-Dichlorophenol	86		90		30-130	5		30
Naphthalene	74		76		40-140	3		30
4-Chloroaniline	69		69		40-140	0		30
Hexachlorobutadiene	65		67		40-140	3		30
Caprolactam	49		50		10-130	2		30
2-Methylnaphthalene	70		72		40-140	3		30
Hexachlorocyclopentadiene	82		83		40-140	1		30
1,2,4,5-Tetrachlorobenzene	76		74		2-134	3		30
2,4,6-Trichlorophenol	84		86		30-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1888201-2 WG1888201-3								
2,4,5-Trichlorophenol	88		87		30-130	1		30
Biphenyl	77		79		40-140	3		30
2-Chloronaphthalene	77		77		40-140	0		30
2-Nitroaniline	88		89		52-143	1		30
2,6-Dinitrotoluene	87		89		40-140	2		30
Acenaphthylene	80		79		45-123	1		30
Acenaphthene	77		78		37-111	1		30
2,4-Dinitrophenol	76		87		20-130	13		30
2,4-Dinitrotoluene	88		91		48-143	3		30
2,3,4,6-Tetrachlorophenol	81		90		54-145	11		30
Diethyl phthalate	82		84		40-140	2		30
Fluorene	79		82		40-140	4		30
4-Nitroaniline	79		81		51-143	3		30
NDPA/DPA	75		83		40-140	10		30
Hexachlorobenzene	84		89		40-140	6		30
Pentachlorophenol	85		88		9-103	3		30
Phenanthrene	88		86		40-140	2		30
Anthracene	90		89		40-140	1		30
Carbazole	93		91		55-144	2		30
Di-n-butylphthalate	94		96		40-140	2		30
Fluoranthene	88		88		40-140	0		30
Pyrene	89		90		26-127	1		30
3,3'-Dichlorobenzidine	68		64		40-140	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1888201-2 WG1888201-3								
Benzo(a)anthracene	88		89		40-140	1		30
Chrysene	81		86		40-140	6		30
Bis(2-ethylhexyl)phthalate	100		102		40-140	2		30
Di-n-octylphthalate	93		97		40-140	4		30
Benzo(b)fluoranthene	89		93		40-140	4		30
Benzo(k)fluoranthene	93		94		40-140	1		30
Benzo(a)pyrene	93		91		40-140	2		30
Indeno(1,2,3-cd)pyrene	86		84		40-140	2		30
Dibenzo(a,h)anthracene	84		84		40-140	0		30
Benzo(ghi)perylene	86		87		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	73		65		21-120
Phenol-d6	64		58		10-120
Nitrobenzene-d5	84		74		23-120
2-Fluorobiphenyl	79		74		15-120
2,4,6-Tribromophenol	91		94		10-120
4-Terphenyl-d14	86		83		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1888202-2 WG1888202-3								
Naphthalene	74		71		40-140	4		40
2-Methylnaphthalene	77		71		40-140	8		40
Acenaphthylene	82		76		40-140	8		40
Acenaphthene	81		76		37-111	6		40
Fluorene	88		82		40-140	7		40
Pentachlorophenol	92		87		9-103	6		40
Phenanthrene	83		78		40-140	6		40
Anthracene	87		81		40-140	7		40
Fluoranthene	92		82		40-140	11		40
Pyrene	92		82		26-127	11		40
Benzo(a)anthracene	88		82		40-140	7		40
Chrysene	86		79		40-140	8		40
Benzo(b)fluoranthene	96		93		40-140	3		40
Benzo(k)fluoranthene	103		93		40-140	10		40
Benzo(a)pyrene	93		86		40-140	8		40
Indeno(1,2,3-cd)pyrene	82		76		40-140	8		40
Dibenzo(a,h)anthracene	85		79		40-140	7		40
Benzo(ghi)perylene	76		71		40-140	7		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1888202-2 WG1888202-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		61		21-120
Phenol-d6	63		55		10-120
Nitrobenzene-d5	94		85		23-120
2-Fluorobiphenyl	80		73		15-120
2,4,6-Tribromophenol	109		96		10-120
4-Terphenyl-d14	90		79		41-149

Project Name: B14 GW
Project Number: 21010214

Lab Number: L2408968
Report Date: 02/26/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408968-01A	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-01B	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-01C	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-01D	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2408968-01E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2408968-02A	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-02B	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-02C	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-02D	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2408968-02E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2408968-03A	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2408968-03B	Vial HCl preserved	A	NA		3.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	B14 GW	**Lab Number:**	L2408968
Project Number:	21010214	**Report Date:**	02/26/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 GW	**Lab Number:**	L2408968
Project Number:	21010214	**Report Date:**	02/26/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14 GW	**Lab Number:**	L2408968
Project Number:	21010214	**Report Date:**	02/26/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	B14 GW	**Lab Number:**	L2408968
Project Number:	21010214	**Report Date:**	02/26/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 2/20/24

ALPHA Job #: L2408968

Client Information

Client: TPA

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: B14-GW

Project Location: B14

Project #: 21010214

Project Manager: Bob T.

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS VOC 8260	ANALYSIS SVOC 8270 SIM	SAMPLE HANDLING	Sample Specific Comments	TOTAL # BOTTLES
08968-01	HI 22-MWS	2/16/24	1525	GW	TP	X	X			5
02	HI14-MWS	2/16/24	1140	GW	TP	X	X			5
03	TB-WT-01	—	—	—	—	X				2

SAMPLE HANDLING: *Filtration* ☐ Done ☐ Not needed ☐ Lab to do; *Preservation* ☐ Lab to do (Please specify below)

Container Type			
Preservative	B	A	

Relinquished By:	Date/Time	Received By:	Date/Time
	2/19/24 1200		2/16/24 1552
	2/19/24 1800		2/19/24 1800
Anthony Green	2/19/24 2105	Anthony Green FEB 19 2024 2131	
	2/20/24 0000		2/20/24 0000

Rel: 2/20/24 0200 2/20/24 0200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ANALYTICAL REPORT

Lab Number:	L2409270
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	B14-Q1
Project Number:	21010214
Report Date:	02/29/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2409270-01	HI19-MWS	WATER	Not Specified	02/20/24 13:25	02/21/24
L2409270-02	HI21-MWS	WATER	Not Specified	02/20/24 14:30	02/21/24
L2409270-03	DUP	WATER	Not Specified	02/20/24 00:00	02/21/24
L2409270-04	TB-WT-01	WATER	Not Specified	02/20/24 00:00	02/21/24

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 02/29/24

ORGANICS

VOLATILES

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01 Date Collected: 02/20/24 13:25
Client ID: HI19-MWS Date Received: 02/21/24
Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/23/24 09:16
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	9.1		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	3.4		ug/l	0.75	0.20	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01 Date Collected: 02/20/24 13:25

Client ID: HI19-MWS Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	0.20	J	ug/l	0.50	0.17	1
p/m-Xylene	2.3		ug/l	1.0	0.33	1
o-Xylene	1.2		ug/l	1.0	0.39	1
Xylenes, Total	3.5		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	111		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01
Client ID: HI19-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 13:25
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/23/24 09:16
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
4-Bromofluorobenzene	99		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02 Date Collected: 02/20/24 14:30
Client ID: HI21-MWS Date Received: 02/21/24
Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/23/24 09:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02 Date Collected: 02/20/24 14:30

Client ID: HI21-MWS Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	115		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02
Client ID: HI21-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 14:30
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/23/24 09:44
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
4-Bromofluorobenzene	100		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03 Date Collected: 02/20/24 00:00
Client ID: DUP Date Received: 02/21/24
Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/23/24 10:11
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	9.6		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	3.6		ug/l	0.75	0.20	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03 Date Collected: 02/20/24 00:00

Client ID: DUP Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	0.20	J	ug/l	0.50	0.17	1
p/m-Xylene	2.4		ug/l	1.0	0.33	1
o-Xylene	1.2		ug/l	1.0	0.39	1
Xylenes, Total	3.6		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	115		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03
Client ID: DUP
Sample Location: Not Specified

Date Collected: 02/20/24 00:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/23/24 10:11
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	101		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-04 Date Collected: 02/20/24 00:00
Client ID: TB-WT-01 Date Received: 02/21/24
Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/23/24 08:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-04 Date Collected: 02/20/24 00:00

Client ID: TB-WT-01 Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	115		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-04 Date Collected: 02/20/24 00:00

Client ID: TB-WT-01 Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D-SIM(M)

Analytical Date: 02/23/24 08:49

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	100		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/23/24 06:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1888479-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/23/24 06:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1888479-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/23/24 06:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1888479-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	115		70-130

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/23/24 06:58
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1888481-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
4-Bromofluorobenzene	99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1888479-3 WG1888479-4								
Dichlorodifluoromethane	94		96		36-147	2		20
Chloromethane	110		100		64-130	10		20
Vinyl chloride	130		130		55-140	0		20
Bromomethane	110		120		39-139	9		20
Chloroethane	**160**	Q	**160**	Q	55-138	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	110		110		61-145	0		20
Carbon disulfide	110		110		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
Methylene chloride	110		110		70-130	0		20
Acetone	96		94		58-148	2		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Methyl Acetate	98		99		70-130	1		20
Methyl tert butyl ether	94		96		63-130	2		20
1,1-Dichloroethane	110		110		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Cyclohexane	100		100		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	100		98		63-132	2		20
1,1,1-Trichloroethane	100		100		67-130	0		20
2-Butanone	90		91		63-138	1		20
Benzene	110		100		70-130	10		20
1,2-Dichloroethane	100		100		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1888479-3 WG1888479-4								
Trichloroethene	110		110		70-130	0		20
1,2-Dichloropropane	100		110		70-130	10		20
Bromodichloromethane	100		110		67-130	10		20
cis-1,3-Dichloropropene	99		100		70-130	1		20
Toluene	100		100		70-130	0		20
Tetrachloroethene	97		97		70-130	0		20
4-Methyl-2-pentanone	87		86		59-130	1		20
trans-1,3-Dichloropropene	90		92		70-130	2		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Dibromochloromethane	88		92		63-130	4		20
1,2-Dibromoethane	98		99		70-130	1		20
2-Hexanone	86		86		57-130	0		20
Chlorobenzene	100		100		75-130	0		20
Ethylbenzene	100		110		70-130	10		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	105		110		70-130	5		20
Styrene	105		110		70-130	5		20
Bromoform	82		83		54-136	1		20
Isopropylbenzene	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	99		98		67-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1

Project Number: 21010214

Lab Number: L2409270

Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1888479-3 WG1888479-4								
1,2-Dibromo-3-chloropropane	88		86		41-144	2		20
1,2,4-Trichlorobenzene	90		91		70-130	1		20
1,2,3-Trichlorobenzene	91		92		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		95		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	95		92		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1

Project Number: 21010214

Lab Number: L2409270

Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1888481-3 WG1888481-4								
1,1,2,2-Tetrachloroethane	94		87		70-130	8		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		94		70-130
4-Bromofluorobenzene	100		99		70-130

SEMIVOLATILES

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01
Client ID: HI19-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 13:25
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/28/24 18:18
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	0.92	J	ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	9.2		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	21		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	35		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	2.8		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	0.78	J	ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01 Date Collected: 02/20/24 13:25

Client ID: HI19-MWS Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	0.76	J	ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	1.1	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	1.9	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	1.2	J	ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	0.60	J	ug/l	2.0	0.26	1
Pyrene	0.41	J	ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	56		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	69		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-01
Client ID: HI19-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 13:25
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/28/24 13:51
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	24		ug/l	0.10	0.05	1
2-Methylnaphthalene	2.2		ug/l	0.10	0.02	1
Acenaphthylene	0.36		ug/l	0.10	0.01	1
Acenaphthene	0.70		ug/l	0.10	0.01	1
Fluorene	0.85		ug/l	0.10	0.01	1
Pentachlorophenol	0.13		ug/l	0.10	0.01	1
Phenanthrene	1.5		ug/l	0.05	0.02	1
Anthracene	0.28		ug/l	0.10	0.01	1
Fluoranthene	0.45		ug/l	0.10	0.02	1
Pyrene	0.28		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.02	J	ug/l	0.05	0.02	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.01	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	46		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02
Client ID: HI21-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 14:30
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/28/24 19:06
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02 Date Collected: 02/20/24 14:30

Client ID: HI21-MWS Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	72		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-02
Client ID: HI21-MWS
Sample Location: Not Specified

Date Collected: 02/20/24 14:30
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/28/24 14:07
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	ND		ug/l	0.10	0.05	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Acenaphthene	ND		ug/l	0.10	0.01	1
Fluorene	0.11		ug/l	0.10	0.01	1
Pentachlorophenol	0.07	J	ug/l	0.10	0.01	1
Phenanthrene	0.31		ug/l	0.05	0.02	1
Anthracene	0.05	J	ug/l	0.10	0.01	1
Fluoranthene	0.04	J	ug/l	0.10	0.02	1
Pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)anthracene	0.02	J	ug/l	0.05	0.02	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	58		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03
Client ID: DUP
Sample Location: Not Specified

Date Collected: 02/20/24 00:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/28/24 19:29
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	0.90	J	ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	8.6		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	19		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	34		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	2.8		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	0.82	J	ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03 Date Collected: 02/20/24 00:00

Client ID: DUP Date Received: 02/21/24

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	0.83	J	ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	0.98	J	ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	1.9	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	1.1	J	ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	0.54	J	ug/l	2.0	0.26	1
Pyrene	0.37	J	ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	69		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

SAMPLE RESULTS

Lab ID: L2409270-03
Client ID: DUP
Sample Location: Not Specified

Date Collected: 02/20/24 00:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/28/24 14:24
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	25		ug/l	0.10	0.05	1
2-Methylnaphthalene	2.1		ug/l	0.10	0.02	1
Acenaphthylene	0.34		ug/l	0.10	0.01	1
Acenaphthene	0.63		ug/l	0.10	0.01	1
Fluorene	0.79		ug/l	0.10	0.01	1
Pentachlorophenol	0.09	J	ug/l	0.10	0.01	1
Phenanthrene	1.6		ug/l	0.05	0.02	1
Anthracene	0.25		ug/l	0.10	0.01	1
Fluoranthene	0.46		ug/l	0.10	0.02	1
Pyrene	0.31		ug/l	0.10	0.02	1
Benzo(a)anthracene	0.04	J	ug/l	0.05	0.02	1
Chrysene	0.04	J	ug/l	0.10	0.01	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	54		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	49		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/28/24 14:13
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1889070-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/28/24 14:13
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1889070-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/28/24 14:13
Analyst: MRG

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1889070-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	38		10-120
4-Terphenyl-d14	76		41-149

Project Name: B14-Q1 **Lab Number:** L2409270

Project Number: 21010214 **Report Date:** 02/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/28/24 13:34
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 02/25/24 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1889072-1					
Naphthalene	ND		ug/l	0.10	0.05
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Acenaphthylene	ND		ug/l	0.10	0.01
Acenaphthene	ND		ug/l	0.10	0.01
Fluorene	0.02	J	ug/l	0.10	0.01
Pentachlorophenol	0.07	J	ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.05	0.02
Anthracene	0.01	J	ug/l	0.10	0.01
Fluoranthene	0.03	J	ug/l	0.10	0.02
Pyrene	0.03	J	ug/l	0.10	0.02
Benzo(a)anthracene	0.03	J	ug/l	0.05	0.02
Chrysene	0.03	J	ug/l	0.10	0.01
Benzo(b)fluoranthene	0.03	J	ug/l	0.05	0.01
Benzo(k)fluoranthene	0.04	J	ug/l	0.10	0.01
Benzo(a)pyrene	0.03	J	ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01
Dibenzo(a,h)anthracene	0.03	J	ug/l	0.05	0.01
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	58		15-120
2,4,6-Tribromophenol	49		10-120
4-Terphenyl-d14	52		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1889070-2 WG1889070-3								
Benzaldehyde	79		77		40-140	3		30
Phenol	64		60		12-110	6		30
Bis(2-chloroethyl)ether	82		76		40-140	8		30
2-Chlorophenol	75		77		27-123	3		30
2-Methylphenol	71		76		30-130	7		30
Bis(2-chloroisopropyl)ether	81		79		40-140	3		30
Acetophenone	74		75		39-129	1		30
n-Nitrosodi-n-propylamine	86		84		29-132	2		30
3-Methylphenol/4-Methylphenol	83		80		30-130	4		30
Hexachloroethane	73		75		40-140	3		30
Nitrobenzene	89		90		40-140	1		30
Isophorone	82		80		40-140	2		30
2,4-Dimethylphenol	46		62		30-130	30		30
Bis(2-chloroethoxy)methane	84		82		40-140	2		30
2,4-Dichlorophenol	83		84		30-130	1		30
Naphthalene	75		78		40-140	4		30
4-Chloroaniline	76		79		40-140	4		30
Hexachlorobutadiene	68		75		40-140	10		30
Caprolactam	45		49		10-130	9		30
2-Methylnaphthalene	79		80		40-140	1		30
Hexachlorocyclopentadiene	57		64		40-140	12		30
1,2,4,5-Tetrachlorobenzene	78		80		2-134	3		30
2,4,6-Trichlorophenol	88		94		30-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1889070-2 WG1889070-3								
2,4,5-Trichlorophenol	94		94		30-130	0		30
Biphenyl	77		81		40-140	5		30
2-Chloronaphthalene	75		76		40-140	1		30
2-Nitroaniline	97		99		52-143	2		30
2,6-Dinitrotoluene	96		101		40-140	5		30
Acenaphthylene	74		78		45-123	5		30
Acenaphthene	75		75		37-111	0		30
2,4-Dinitrophenol	102		83		20-130	21		30
2,4-Dinitrotoluene	100		97		48-143	3		30
2,3,4,6-Tetrachlorophenol	91		88		54-145	3		30
Diethyl phthalate	84		85		40-140	1		30
Fluorene	80		81		40-140	1		30
4-Nitroaniline	88		92		51-143	4		30
NDPA/DPA	78		79		40-140	1		30
Hexachlorobenzene	81		82		40-140	1		30
Pentachlorophenol	80		84		9-103	5		30
Phenanthrene	77		76		40-140	1		30
Anthracene	78		78		40-140	0		30
Carbazole	80		79		55-144	1		30
Di-n-butylphthalate	78		76		40-140	3		30
Fluoranthene	84		79		40-140	6		30
Pyrene	82		81		26-127	1		30
3,3'-Dichlorobenzidine	71		78		40-140	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1

Project Number: 21010214

Lab Number: L2409270

Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1889070-2 WG1889070-3								
Benzo(a)anthracene	84		83		40-140	1		30
Chrysene	86		89		40-140	3		30
Bis(2-ethylhexyl)phthalate	90		90		40-140	0		30
Di-n-octylphthalate	87		89		40-140	2		30
Benzo(b)fluoranthene	88		89		40-140	1		30
Benzo(k)fluoranthene	84		87		40-140	4		30
Benzo(a)pyrene	91		92		40-140	1		30
Indeno(1,2,3-cd)pyrene	90		92		40-140	2		30
Dibenzo(a,h)anthracene	86		88		40-140	2		30
Benzo(ghi)perylene	87		91		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	72		69		21-120
Phenol-d6	64		65		10-120
Nitrobenzene-d5	88		89		23-120
2-Fluorobiphenyl	79		80		15-120
2,4,6-Tribromophenol	80		86		10-120
4-Terphenyl-d14	76		71		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1889072-2 WG1889072-3								
Naphthalene	62		63		40-140	2		40
2-Methylnaphthalene	59		60		40-140	2		40
Acenaphthylene	62		64		40-140	3		40
Acenaphthene	64		65		37-111	2		40
Fluorene	64		65		40-140	2		40
Pentachlorophenol	64		65		9-103	2		40
Phenanthrene	64		64		40-140	0		40
Anthracene	65		65		40-140	0		40
Fluoranthene	60		61		40-140	2		40
Pyrene	60		60		26-127	0		40
Benzo(a)anthracene	74		75		40-140	1		40
Chrysene	68		69		40-140	1		40
Benzo(b)fluoranthene	66		66		40-140	0		40
Benzo(k)fluoranthene	62		63		40-140	2		40
Benzo(a)pyrene	63		64		40-140	2		40
Indeno(1,2,3-cd)pyrene	72		72		40-140	0		40
Dibenzo(a,h)anthracene	67		67		40-140	0		40
Benzo(ghi)perylene	70		70		40-140	0		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: B14-Q1

Project Number: 21010214

Lab Number: L2409270

Report Date: 02/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1889072-2 WG1889072-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		60		21-120
Phenol-d6	52		51		10-120
Nitrobenzene-d5	69		70		23-120
2-Fluorobiphenyl	61		62		15-120
2,4,6-Tribromophenol	72		73		10-120
4-Terphenyl-d14	50		50		41-149

Project Name: B14-Q1
Project Number: 21010214

Lab Number: L2409270
Report Date: 02/29/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2409270-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-01D	Amber 250ml unpreserved	A	12	12	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-01E	Amber 250ml unpreserved	A	12	12	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-02A	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-02B	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-02C	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-02D	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-02E	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-03A	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-03B	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-03C	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-03D	Amber 250ml unpreserved	A	12	12	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-03E	Amber 250ml unpreserved	A	12	12	2.8	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2409270-04A	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2409270-04B	Vial HCl preserved	A	NA		2.8	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	B14-Q1	**Lab Number:**	L2409270
Project Number:	21010214	**Report Date:**	02/29/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 2/22/24

ALPHA Job #: L2409270

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: TPA

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: B14-Q1

Project Location:

Project #: 21010214

Project Manager: BoB To

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC 8260	ANALYSIS: SVOC 8270 SIM	SAMPLE HANDLING	TOTAL # BOTTLES
09270-01	HI19-MW5	2/20/24	1325	GW	TP	X	X	3 pH > 10	5
02	HI21-MW5	↓	1430		↓	X	X		5
03	DUP	—	—	↓	—	X	X		5
04	TB-WT-01	—	—	—	—	X			2

SAMPLE HANDLING: Filtration ☐ Done ☐ Not needed ☐ Lab to do; Preservation ☐ Lab to do (Please specify below:); Sample Specific Comments

Container Type	V A
Preservative	B A

Relinquished By:	Date/Time	Received By:	Date/Time
ARM	2/21/24 1045	D. Robinson PACE	2/21/24 1045
D. Robinson PACE	2/21/24 1800		2/21/24 1800
Anthony Green	2/22/24 0030	Anthony Green	FEB 21 2024 2123
			2/22/24 0030

2/22/24 0230

2/22/24 0230

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

APPENDIX C

Mann-Kendall Trend Analysis

Parameter: Benzene

Location: TM04-PZM006

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
610	1400	-790	0	1
653	1400	-747	0	2
355	1400	-1045	0	3
367	1400	-1033	0	4
390	1400	-1010	0	5
390	1400	-1010	0	6
380	1400	-1020	0	7
180	1400	-1220	0	8
500	1400	-900	0	9
500	1400	-900	0	10
460	1400	-940	0	11
400	1400	-1000	0	12
500	1400	-900	0	13
540	1400	-860	0	14
500	1400	-900	0	15
370	1400	-1030	0	16
340	1400	-1060	0	17
490	1400	-910	0	18
140	1400	-1260	0	19
653	610	43	1	19
355	610	-255	1	20
367	610	-243	1	21
390	610	-220	1	22
390	610	-220	1	23
380	610	-230	1	24
180	610	-430	1	25
500	610	-110	1	26
500	610	-110	1	27
460	610	-150	1	28
400	610	-210	1	29
500	610	-110	1	30
540	610	-70	1	31
500	610	-110	1	32
370	610	-240	1	33
340	610	-270	1	34
490	610	-120	1	35
140	610	-470	1	36
355	653	-298	1	37
367	653	-286	1	38
390	653	-263	1	39
390	653	-263	1	40
380	653	-273	1	41
180	653	-473	1	42
500	653	-153	1	43
500	653	-153	1	44

460	653	-193	1	45
400	653	-253	1	46
500	653	-153	1	47
540	653	-113	1	48
500	653	-153	1	49
370	653	-283	1	50
340	653	-313	1	51
490	653	-163	1	52
140	653	-513	1	53
367	355	12	2	53
390	355	35	3	53
390	355	35	4	53
380	355	25	5	53
180	355	-175	5	54
500	355	145	6	54
500	355	145	7	54
460	355	105	8	54
400	355	45	9	54
500	355	145	10	54
540	355	185	11	54
500	355	145	12	54
370	355	15	13	54
340	355	-15	13	55
490	355	135	14	55
140	355	-215	14	56
390	367	23	15	56
390	367	23	16	56
380	367	13	17	56
180	367	-187	17	57
500	367	133	18	57
500	367	133	19	57
460	367	93	20	57
400	367	33	21	57
500	367	133	22	57
540	367	173	23	57
500	367	133	24	57
370	367	3	25	57
340	367	-27	25	58
490	367	123	26	58
140	367	-227	26	59
390	390	0	26	59
380	390	-10	26	60
180	390	-210	26	61
500	390	110	27	61
500	390	110	28	61
460	390	70	29	61
400	390	10	30	61
500	390	110	31	61
540	390	150	32	61
500	390	110	33	61
370	390	-20	33	62
340	390	-50	33	63
490	390	100	34	63
140	390	-250	34	64

380	390	-10	34	65
180	390	-210	34	66
500	390	110	35	66
500	390	110	36	66
460	390	70	37	66
400	390	10	38	66
500	390	110	39	66
540	390	150	40	66
500	390	110	41	66
370	390	-20	41	67
340	390	-50	41	68
490	390	100	42	68
140	390	-250	42	69
180	380	-200	42	70
500	380	120	43	70
500	380	120	44	70
460	380	80	45	70
400	380	20	46	70
500	380	120	47	70
540	380	160	48	70
500	380	120	49	70
370	380	-10	49	71
340	380	-40	49	72
490	380	110	50	72
140	380	-240	50	73
500	180	320	51	73
500	180	320	52	73
460	180	280	53	73
400	180	220	54	73
500	180	320	55	73
540	180	360	56	73
500	180	320	57	73
370	180	190	58	73
340	180	160	59	73
490	180	310	60	73
140	180	-40	60	74
500	500	0	60	74
460	500	-40	60	75
400	500	-100	60	76
500	500	0	60	76
540	500	40	61	76
500	500	0	61	76
370	500	-130	61	77
340	500	-160	61	78
490	500	-10	61	79
140	500	-360	61	80
460	500	-40	61	81
400	500	-100	61	82
500	500	0	61	82
540	500	40	62	82
500	500	0	62	82
370	500	-130	62	83

340	500	-160	62	84
490	500	-10	62	85
140	500	-360	62	86
400	460	-60	62	87
500	460	40	63	87
540	460	80	64	87
500	460	40	65	87
370	460	-90	65	88
340	460	-120	65	89
490	460	30	66	89
140	460	-320	66	90
500	400	100	67	90
540	400	140	68	90
500	400	100	69	90
370	400	-30	69	91
340	400	-60	69	92
490	400	90	70	92
140	400	-260	70	93
540	500	40	71	93
500	500	0	71	93
370	500	-130	71	94
340	500	-160	71	95
490	500	-10	71	96
140	500	-360	71	97
500	540	-40	71	98
370	540	-170	71	99
340	540	-200	71	100
490	540	-50	71	101
140	540	-400	71	102
370	500	-130	71	103
340	500	-160	71	104
490	500	-10	71	105
140	500	-360	71	106
340	370	-30	71	107
490	370	120	72	107
140	370	-230	72	108
490	340	150	73	108
140	340	-200	73	109
140	490	-350	73	110

S Statistic = 73 - 110 = -37

Tied Group	Value	Members
1	390	2
2	500	4

Time Period	Observations
12/1/2001	1

7/1/2004	1
10/13/2017	1
10/21/2021	1
11/29/2021	1
1/12/2022	1
2/18/2022	1
3/15/2022	1
4/18/2022	1
5/19/2022	1
6/15/2022	1
7/27/2022	1
8/29/2022	1
9/21/2022	1
10/26/2022	1
1/12/2023	1
4/10/2023	1
7/19/2023	1
10/4/2023	1
2/8/2024	1

There are 0 time periods with multiple data

A = 174
B = 0
C = 24
D = 0
E = 14
F = 0
a = 17100
b = 61560
c = 760
Group Variance = 940.333
Z-Score = -1.17398
Comparison Level at 95% confidence level = 1.65463 (upward trend)
-1.17398 <= 1.65463 indicating no evidence of an upward trend

Mann-Kendall Trend Analysis

Parameter: Benzene

Location: TM04-PZM006

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
610	1400	-790	0	1
653	1400	-747	0	2
355	1400	-1045	0	3
367	1400	-1033	0	4
390	1400	-1010	0	5
390	1400	-1010	0	6
380	1400	-1020	0	7
180	1400	-1220	0	8
500	1400	-900	0	9
500	1400	-900	0	10
460	1400	-940	0	11
400	1400	-1000	0	12
500	1400	-900	0	13
540	1400	-860	0	14
500	1400	-900	0	15
370	1400	-1030	0	16
340	1400	-1060	0	17
490	1400	-910	0	18
140	1400	-1260	0	19
653	610	43	1	19
355	610	-255	1	20
367	610	-243	1	21
390	610	-220	1	22
390	610	-220	1	23
380	610	-230	1	24
180	610	-430	1	25
500	610	-110	1	26
500	610	-110	1	27
460	610	-150	1	28
400	610	-210	1	29
500	610	-110	1	30
540	610	-70	1	31
500	610	-110	1	32
370	610	-240	1	33
340	610	-270	1	34
490	610	-120	1	35
140	610	-470	1	36
355	653	-298	1	37
367	653	-286	1	38
390	653	-263	1	39
390	653	-263	1	40
380	653	-273	1	41
180	653	-473	1	42
500	653	-153	1	43
500	653	-153	1	44

460	653	-193	1	45
400	653	-253	1	46
500	653	-153	1	47
540	653	-113	1	48
500	653	-153	1	49
370	653	-283	1	50
340	653	-313	1	51
490	653	-163	1	52
140	653	-513	1	53
367	355	12	2	53
390	355	35	3	53
390	355	35	4	53
380	355	25	5	53
180	355	-175	5	54
500	355	145	6	54
500	355	145	7	54
460	355	105	8	54
400	355	45	9	54
500	355	145	10	54
540	355	185	11	54
500	355	145	12	54
370	355	15	13	54
340	355	-15	13	55
490	355	135	14	55
140	355	-215	14	56
390	367	23	15	56
390	367	23	16	56
380	367	13	17	56
180	367	-187	17	57
500	367	133	18	57
500	367	133	19	57
460	367	93	20	57
400	367	33	21	57
500	367	133	22	57
540	367	173	23	57
500	367	133	24	57
370	367	3	25	57
340	367	-27	25	58
490	367	123	26	58
140	367	-227	26	59
390	390	0	26	59
380	390	-10	26	60
180	390	-210	26	61
500	390	110	27	61
500	390	110	28	61
460	390	70	29	61
400	390	10	30	61
500	390	110	31	61
540	390	150	32	61
500	390	110	33	61
370	390	-20	33	62
340	390	-50	33	63
490	390	100	34	63
140	390	-250	34	64

380	390	-10	34	65
180	390	-210	34	66
500	390	110	35	66
500	390	110	36	66
460	390	70	37	66
400	390	10	38	66
500	390	110	39	66
540	390	150	40	66
500	390	110	41	66
370	390	-20	41	67
340	390	-50	41	68
490	390	100	42	68
140	390	-250	42	69
180	380	-200	42	70
500	380	120	43	70
500	380	120	44	70
460	380	80	45	70
400	380	20	46	70
500	380	120	47	70
540	380	160	48	70
500	380	120	49	70
370	380	-10	49	71
340	380	-40	49	72
490	380	110	50	72
140	380	-240	50	73
500	180	320	51	73
500	180	320	52	73
460	180	280	53	73
400	180	220	54	73
500	180	320	55	73
540	180	360	56	73
500	180	320	57	73
370	180	190	58	73
340	180	160	59	73
490	180	310	60	73
140	180	-40	60	74
500	500	0	60	74
460	500	-40	60	75
400	500	-100	60	76
500	500	0	60	76
540	500	40	61	76
500	500	0	61	76
370	500	-130	61	77
340	500	-160	61	78
490	500	-10	61	79
140	500	-360	61	80
460	500	-40	61	81
400	500	-100	61	82
500	500	0	61	82
540	500	40	62	82
500	500	0	62	82
370	500	-130	62	83

340	500	-160	62	84
490	500	-10	62	85
140	500	-360	62	86
400	460	-60	62	87
500	460	40	63	87
540	460	80	64	87
500	460	40	65	87
370	460	-90	65	88
340	460	-120	65	89
490	460	30	66	89
140	460	-320	66	90
500	400	100	67	90
540	400	140	68	90
500	400	100	69	90
370	400	-30	69	91
340	400	-60	69	92
490	400	90	70	92
140	400	-260	70	93
540	500	40	71	93
500	500	0	71	93
370	500	-130	71	94
340	500	-160	71	95
490	500	-10	71	96
140	500	-360	71	97
500	540	-40	71	98
370	540	-170	71	99
340	540	-200	71	100
490	540	-50	71	101
140	540	-400	71	102
370	500	-130	71	103
340	500	-160	71	104
490	500	-10	71	105
140	500	-360	71	106
340	370	-30	71	107
490	370	120	72	107
140	370	-230	72	108
490	340	150	73	108
140	340	-200	73	109
140	490	-350	73	110

S Statistic = 73 - 110 = -37

Tied Group	Value	Members
1	390	2
2	500	4

Time Period	Observations
12/1/2001	1

7/1/2004	1
10/13/2017	1
10/21/2021	1
11/29/2021	1
1/12/2022	1
2/18/2022	1
3/15/2022	1
4/18/2022	1
5/19/2022	1
6/15/2022	1
7/27/2022	1
8/29/2022	1
9/21/2022	1
10/26/2022	1
1/12/2023	1
4/10/2023	1
7/19/2023	1
10/4/2023	1
2/8/2024	1

There are 0 time periods with multiple data

A = 174
B = 0
C = 24
D = 0
E = 14
F = 0
a = 17100
b = 61560
c = 760
Group Variance = 940.333
Z-Score = -1.17398
Comparison Level at 95% confidence level = -1.65463 (downward trend)
-1.17398 >= -1.65463 indicating no evidence of a downward trend

Mann-Kendall Trend Analysis

Parameter: Naphthalene

Location: TM04-PZM006

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
51	200	-149	0	1
405	200	205	1	1
358	200	158	2	1
432 L1	200	232	3	1
140	200	-60	3	2
69	200	-131	3	3
240	200	40	4	3
54	200	-146	4	4
230	200	30	5	4
160	200	-40	5	5
180	200	-20	5	6
140	200	-60	5	7
210	200	10	6	7
160	200	-40	6	8
210	200	10	7	8
68	200	-132	7	9
ND<0.05 U	200	-199.95	7	10
170	200	-30	7	11
0.12	200	-199.88	7	12
405	51	354	8	12
358	51	307	9	12
432 L1	51	381	10	12
140	51	89	11	12
69	51	18	12	12
240	51	189	13	12
54	51	3	14	12
230	51	179	15	12
160	51	109	16	12
180	51	129	17	12
140	51	89	18	12
210	51	159	19	12
160	51	109	20	12
210	51	159	21	12
68	51	17	22	12
ND<0.05 U	51	-50.95	22	13
170	51	119	23	13
0.12	51	-50.88	23	14
358	405	-47	23	15
432 L1	405	27	24	15
140	405	-265	24	16
69	405	-336	24	17
240	405	-165	24	18
54	405	-351	24	19
230	405	-175	24	20
160	405	-245	24	21

180	405	-225	24	22
140	405	-265	24	23
210	405	-195	24	24
160	405	-245	24	25
210	405	-195	24	26
68	405	-337	24	27
ND<0.05 U	405	-404.95	24	28
170	405	-235	24	29
0.12	405	-404.88	24	30
432 L1	358	74	25	30
140	358	-218	25	31
69	358	-289	25	32
240	358	-118	25	33
54	358	-304	25	34
230	358	-128	25	35
160	358	-198	25	36
180	358	-178	25	37
140	358	-218	25	38
210	358	-148	25	39
160	358	-198	25	40
210	358	-148	25	41
68	358	-290	25	42
ND<0.05 U	358	-357.95	25	43
170	358	-188	25	44
0.12	358	-357.88	25	45
140	432 L1	-292	25	46
69	432 L1	-363	25	47
240	432 L1	-192	25	48
54	432 L1	-378	25	49
230	432 L1	-202	25	50
160	432 L1	-272	25	51
180	432 L1	-252	25	52
140	432 L1	-292	25	53
210	432 L1	-222	25	54
160	432 L1	-272	25	55
210	432 L1	-222	25	56
68	432 L1	-364	25	57
ND<0.05 U	432 L1	-431.95	25	58
170	432 L1	-262	25	59
0.12	432 L1	-431.88	25	60
69	140	-71	25	61
240	140	100	26	61
54	140	-86	26	62
230	140	90	27	62
160	140	20	28	62
180	140	40	29	62
140	140	0	29	62
210	140	70	30	62
160	140	20	31	62
210	140	70	32	62
68	140	-72	32	63
ND<0.05 U	140	-139.95	32	64
170	140	30	33	64
0.12	140	-139.88	33	65

240	69	171	34	65
54	69	-15	34	66
230	69	161	35	66
160	69	91	36	66
180	69	111	37	66
140	69	71	38	66
210	69	141	39	66
160	69	91	40	66
210	69	141	41	66
68	69	-1	41	67
ND<0.05 U	69	-68.95	41	68
170	69	101	42	68
0.12	69	-68.88	42	69
54	240	-186	42	70
230	240	-10	42	71
160	240	-80	42	72
180	240	-60	42	73
140	240	-100	42	74
210	240	-30	42	75
160	240	-80	42	76
210	240	-30	42	77
68	240	-172	42	78
ND<0.05 U	240	-239.95	42	79
170	240	-70	42	80
0.12	240	-239.88	42	81
230	54	176	43	81
160	54	106	44	81
180	54	126	45	81
140	54	86	46	81
210	54	156	47	81
160	54	106	48	81
210	54	156	49	81
68	54	14	50	81
ND<0.05 U	54	-53.95	50	82
170	54	116	51	82
0.12	54	-53.88	51	83
160	230	-70	51	84
180	230	-50	51	85
140	230	-90	51	86
210	230	-20	51	87
160	230	-70	51	88
210	230	-20	51	89
68	230	-162	51	90
ND<0.05 U	230	-229.95	51	91
170	230	-60	51	92
0.12	230	-229.88	51	93
180	160	20	52	93
140	160	-20	52	94
210	160	50	53	94
160	160	0	53	94
210	160	50	54	94
68	160	-92	54	95

ND<0.05 U	160	-159.95	54	96
170	160	10	55	96
0.12	160	-159.88	55	97
140	180	-40	55	98
210	180	30	56	98
160	180	-20	56	99
210	180	30	57	99
68	180	-112	57	100
ND<0.05 U	180	-179.95	57	101
170	180	-10	57	102
0.12	180	-179.88	57	103
210	140	70	58	103
160	140	20	59	103
210	140	70	60	103
68	140	-72	60	104
ND<0.05 U	140	-139.95	60	105
170	140	30	61	105
0.12	140	-139.88	61	106
160	210	-50	61	107
210	210	0	61	107
68	210	-142	61	108
ND<0.05 U	210	-209.95	61	109
170	210	-40	61	110
0.12	210	-209.88	61	111
210	160	50	62	111
68	160	-92	62	112
ND<0.05 U	160	-159.95	62	113
170	160	10	63	113
0.12	160	-159.88	63	114
68	210	-142	63	115
ND<0.05 U	210	-209.95	63	116
170	210	-40	63	117
0.12	210	-209.88	63	118
ND<0.05 U	68	-67.95	63	119
170	68	102	64	119
0.12	68	-67.88	64	120
170	ND<0.05 U	169.95	65	120
0.12	ND<0.05 U	0.07	66	120
0.12	170	-169.88	66	121

S Statistic = 66 - 121 = -55

Tied Group	Value	Members
1	140	2
2	160	2
3	210	2

Time Period	Observations

12/1/2001	1
7/1/2004	1
10/13/2017	1
10/21/2021	1
11/29/2021	1
1/12/2022	1
2/18/2022	1
3/15/2022	1
4/18/2022	1
5/19/2022	1
6/15/2022	1
7/27/2022	1
8/29/2022	1
9/21/2022	1
10/26/2022	1
1/12/2023	1
4/10/2023	1
7/19/2023	1
10/4/2023	1
2/8/2024	1

There are 0 time periods with multiple data

A = 54
B = 0
C = 0
D = 0
E = 6
F = 0
a = 17100
b = 61560
c = 760
Group Variance = 947
Z-Score = -1.75476
Comparison Level at 95% confidence level = 1.65463 (upward trend)
-1.75476 <= 1.65463 indicating no evidence of an upward trend

Mann-Kendall Trend Analysis

Parameter: Naphthalene

Location: TM04-PZM006

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
51	200	-149	0	1
405	200	205	1	1
358	200	158	2	1
432 L1	200	232	3	1
140	200	-60	3	2
69	200	-131	3	3
240	200	40	4	3
54	200	-146	4	4
230	200	30	5	4
160	200	-40	5	5
180	200	-20	5	6
140	200	-60	5	7
210	200	10	6	7
160	200	-40	6	8
210	200	10	7	8
68	200	-132	7	9
ND<0.05 U	200	-199.95	7	10
170	200	-30	7	11
0.12	200	-199.88	7	12
405	51	354	8	12
358	51	307	9	12
432 L1	51	381	10	12
140	51	89	11	12
69	51	18	12	12
240	51	189	13	12
54	51	3	14	12
230	51	179	15	12
160	51	109	16	12
180	51	129	17	12
140	51	89	18	12
210	51	159	19	12
160	51	109	20	12
210	51	159	21	12
68	51	17	22	12
ND<0.05 U	51	-50.95	22	13
170	51	119	23	13
0.12	51	-50.88	23	14
358	405	-47	23	15
432 L1	405	27	24	15
140	405	-265	24	16
69	405	-336	24	17
240	405	-165	24	18
54	405	-351	24	19
230	405	-175	24	20
160	405	-245	24	21

180	405	-225	24	22
140	405	-265	24	23
210	405	-195	24	24
160	405	-245	24	25
210	405	-195	24	26
68	405	-337	24	27
ND<0.05 U	405	-404.95	24	28
170	405	-235	24	29
0.12	405	-404.88	24	30
432 L1	358	74	25	30
140	358	-218	25	31
69	358	-289	25	32
240	358	-118	25	33
54	358	-304	25	34
230	358	-128	25	35
160	358	-198	25	36
180	358	-178	25	37
140	358	-218	25	38
210	358	-148	25	39
160	358	-198	25	40
210	358	-148	25	41
68	358	-290	25	42
ND<0.05 U	358	-357.95	25	43
170	358	-188	25	44
0.12	358	-357.88	25	45
140	432 L1	-292	25	46
69	432 L1	-363	25	47
240	432 L1	-192	25	48
54	432 L1	-378	25	49
230	432 L1	-202	25	50
160	432 L1	-272	25	51
180	432 L1	-252	25	52
140	432 L1	-292	25	53
210	432 L1	-222	25	54
160	432 L1	-272	25	55
210	432 L1	-222	25	56
68	432 L1	-364	25	57
ND<0.05 U	432 L1	-431.95	25	58
170	432 L1	-262	25	59
0.12	432 L1	-431.88	25	60
69	140	-71	25	61
240	140	100	26	61
54	140	-86	26	62
230	140	90	27	62
160	140	20	28	62
180	140	40	29	62
140	140	0	29	62
210	140	70	30	62
160	140	20	31	62
210	140	70	32	62
68	140	-72	32	63
ND<0.05 U	140	-139.95	32	64
170	140	30	33	64
0.12	140	-139.88	33	65

240	69	171	34	65
54	69	-15	34	66
230	69	161	35	66
160	69	91	36	66
180	69	111	37	66
140	69	71	38	66
210	69	141	39	66
160	69	91	40	66
210	69	141	41	66
68	69	-1	41	67
ND<0.05 U	69	-68.95	41	68
170	69	101	42	68
0.12	69	-68.88	42	69
54	240	-186	42	70
230	240	-10	42	71
160	240	-80	42	72
180	240	-60	42	73
140	240	-100	42	74
210	240	-30	42	75
160	240	-80	42	76
210	240	-30	42	77
68	240	-172	42	78
ND<0.05 U	240	-239.95	42	79
170	240	-70	42	80
0.12	240	-239.88	42	81
230	54	176	43	81
160	54	106	44	81
180	54	126	45	81
140	54	86	46	81
210	54	156	47	81
160	54	106	48	81
210	54	156	49	81
68	54	14	50	81
ND<0.05 U	54	-53.95	50	82
170	54	116	51	82
0.12	54	-53.88	51	83
160	230	-70	51	84
180	230	-50	51	85
140	230	-90	51	86
210	230	-20	51	87
160	230	-70	51	88
210	230	-20	51	89
68	230	-162	51	90
ND<0.05 U	230	-229.95	51	91
170	230	-60	51	92
0.12	230	-229.88	51	93
180	160	20	52	93
140	160	-20	52	94
210	160	50	53	94
160	160	0	53	94
210	160	50	54	94
68	160	-92	54	95

ND<0.05 U	160	-159.95	54	96
170	160	10	55	96
0.12	160	-159.88	55	97
140	180	-40	55	98
210	180	30	56	98
160	180	-20	56	99
210	180	30	57	99
68	180	-112	57	100
ND<0.05 U	180	-179.95	57	101
170	180	-10	57	102
0.12	180	-179.88	57	103
210	140	70	58	103
160	140	20	59	103
210	140	70	60	103
68	140	-72	60	104
ND<0.05 U	140	-139.95	60	105
170	140	30	61	105
0.12	140	-139.88	61	106
160	210	-50	61	107
210	210	0	61	107
68	210	-142	61	108
ND<0.05 U	210	-209.95	61	109
170	210	-40	61	110
0.12	210	-209.88	61	111
210	160	50	62	111
68	160	-92	62	112
ND<0.05 U	160	-159.95	62	113
170	160	10	63	113
0.12	160	-159.88	63	114
68	210	-142	63	115
ND<0.05 U	210	-209.95	63	116
170	210	-40	63	117
0.12	210	-209.88	63	118
ND<0.05 U	68	-67.95	63	119
170	68	102	64	119
0.12	68	-67.88	64	120
170	ND<0.05 U	169.95	65	120
0.12	ND<0.05 U	0.07	66	120
0.12	170	-169.88	66	121

S Statistic = 66 - 121 = -55

Tied Group	Value	Members
1	140	2
2	160	2
3	210	2

Time Period	Observations

12/1/2001	1
7/1/2004	1
10/13/2017	1
10/21/2021	1
11/29/2021	1
1/12/2022	1
2/18/2022	1
3/15/2022	1
4/18/2022	1
5/19/2022	1
6/15/2022	1
7/27/2022	1
8/29/2022	1
9/21/2022	1
10/26/2022	1
1/12/2023	1
4/10/2023	1
7/19/2023	1
10/4/2023	1
2/8/2024	1

There are 0 time periods with multiple data

A = 54
B = 0
C = 0
D = 0
E = 6
F = 0
a = 17100
b = 61560
c = 760
Group Variance = 947
Z-Score = -1.75476
Comparison Level at 95% confidence level = -1.65463 (downward trend)
-1.75476 < -1.65463 indicating a downward trend

APPENDIX D

ANALYTICAL REPORT

Lab Number:	L2407286
Client:	Tradepoint Atlantic 1600 Sparrows Point Boulevard Baltimore, MD 21219
ATTN:	Robert Tworkowski
Phone:	(443) 649-5073
Project Name:	TMC SW SAMPLING
Project Number:	21010216
Report Date:	02/15/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2407286-01	TMC-OUTLET	WATER	TMC	02/08/24 12:00	02/08/24
L2407286-02	TMC-TM04	WATER	TMC	02/08/24 12:10	02/08/24
L2407286-03	TMC-BEND	WATER	TMC	02/08/24 12:20	02/08/24
L2407286-04	TMC-RAIL-BRIDGE	WATER	TMC	02/08/24 12:30	02/08/24
L2407286-05	DUP	WATER	TMC	02/08/24 00:00	02/08/24
L2407286-06	TRIP BLANK	WATER	TMC	02/08/24 00:00	02/08/24

Project Name:	TMC SW SAMPLING	**Lab Number:**	L2407286
Project Number:	21010216	**Report Date:**	02/15/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TMC SW SAMPLING **Lab Number:** L2407286
Project Number: 21010216 **Report Date:** 02/15/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2407286-02: The container(s) for Volatile Organics were received empty; however, there was adequate sample remaining to perform the requested analysis.

Semivolatile Organics

The WG1884636-4/-5 MS/MSD recoveries, performed on L2407286-01, are below the acceptance criteria for 4-nitroaniline (9%/9%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

The WG1884636-4/-5 MS/MSD recoveries, performed on L2407286-01, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) due to the concentration of this compound in the MS/MSD falling below the reported detection limit.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 02/15/24

ORGANICS

VOLATILES

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01
Client ID: TMC-OUTLET
Sample Location: TMC

Date Collected: 02/08/24 12:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 06:25
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	2.2	J	ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	2.9	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	0.77		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.50		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01 Date Collected: 02/08/24 12:00

Client ID: TMC-OUTLET Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	110		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01
Client ID: TMC-OUTLET
Sample Location: TMC

Date Collected: 02/08/24 12:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 06:25
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	94		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02
Client ID: TMC-TM04
Sample Location: TMC

Date Collected: 02/08/24 12:10
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 07:37
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	2.4	J	ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.6	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	0.81		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.52		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02
Client ID: TMC-TM04
Sample Location: TMC
Date Collected: 02/08/24 12:10
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02
Client ID: TMC-TM04
Sample Location: TMC
Date Collected: 02/08/24 12:10
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 07:37
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	95		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03
Client ID: TMC-BEND
Sample Location: TMC

Date Collected: 02/08/24 12:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 08:01
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.7	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.38	J	ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03 Date Collected: 02/08/24 12:20

Client ID: TMC-BEND Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	111		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03
Client ID: TMC-BEND
Sample Location: TMC

Date Collected: 02/08/24 12:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 08:01
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	94		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04
Client ID: TMC-RAIL-BRIDGE
Sample Location: TMC
Date Collected: 02/08/24 12:30
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 08:25
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.5	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.38	J	ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04 Date Collected: 02/08/24 12:30

Client ID: TMC-RAIL-BRIDGE Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	114		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04
Client ID: TMC-RAIL-BRIDGE
Sample Location: TMC
Date Collected: 02/08/24 12:30
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 08:25
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
4-Bromofluorobenzene	94		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05
Client ID: DUP
Sample Location: TMC

Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 08:49
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	2.3	J	ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	3.3	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	0.78		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	0.53		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05 Date Collected: 02/08/24 00:00

Client ID: DUP Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	107		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05
Client ID: DUP
Sample Location: TMC

Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 08:49
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	94		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-06
Client ID: TRIP BLANK
Sample Location: TMC
Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/13/24 07:13
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Cyclohexane	ND		ug/l	10	0.27	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-06 Date Collected: 02/08/24 00:00

Client ID: TRIP BLANK Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	116		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-06
Client ID: TRIP BLANK
Sample Location: TMC
Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 07:13
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
4-Bromofluorobenzene	95		70-130

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1884827-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Cyclohexane	ND		ug/l	10	0.27
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1884827-5					
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1884827-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 02/13/24 05:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-06 Batch: WG1884841-5					
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
4-Bromofluorobenzene	96		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1884827-3 WG1884827-4								
Dichlorodifluoromethane	94		94		36-147	0		20
Chloromethane	100		100		64-130	0		20
Vinyl chloride	120		110		55-140	9		20
Bromomethane	110		110		39-139	0		20
Chloroethane	110		110		55-138	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	100		100		61-145	0		20
Carbon disulfide	100		100		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		110		70-130	10		20
Methylene chloride	100		99		70-130	1		20
Acetone	100		97		58-148	3		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Methyl Acetate	98		90		70-130	9		20
Methyl tert butyl ether	96		94		63-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Cyclohexane	100		100		70-130	0		20
Chloroform	98		96		70-130	2		20
Carbon tetrachloride	110		110		63-132	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
2-Butanone	100		93		63-138	7		20
Benzene	100		100		70-130	0		20
1,2-Dichloroethane	93		94		70-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1884827-3 WG1884827-4								
Trichloroethene	100		98		70-130	2		20
1,2-Dichloropropane	100		100		70-130	0		20
Bromodichloromethane	100		100		67-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Toluene	100		99		70-130	1		20
Tetrachloroethene	100		100		70-130	0		20
4-Methyl-2-pentanone	89		84		59-130	6		20
trans-1,3-Dichloropropene	91		89		70-130	2		20
1,1,2-Trichloroethane	100		96		70-130	4		20
Dibromochloromethane	98		94		63-130	4		20
1,2-Dibromoethane	100		98		70-130	2		20
2-Hexanone	92		87		57-130	6		20
Chlorobenzene	100		100		75-130	0		20
Ethylbenzene	100		100		70-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Bromoform	88		86		54-136	2		20
Isopropylbenzene	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	96		93		67-130	3		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	99		99		70-130	0		20
1,2-Dichlorobenzene	98		98		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING

Project Number: 21010216

Lab Number: L2407286

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1884827-3 WG1884827-4								
1,2-Dibromo-3-chloropropane	86		82		41-144	5		20
1,2,4-Trichlorobenzene	97		96		70-130	1		20
1,2,3-Trichlorobenzene	97		98		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	102		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-06 Batch: WG1884841-3 WG1884841-4								
1,1,2,2-Tetrachloroethane	103		98		70-130	5		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
4-Bromofluorobenzene	96		96		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1884827-6 WG1884827-7 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
Dichlorodifluoromethane	ND	10	10	100		9.9	99		36-147	1		20
Chloromethane	ND	10	11	110		10	100		64-130	10		20
Vinyl chloride	ND	10	12	120		12	120		55-140	0		20
Bromomethane	ND	10	12	120		12	120		39-139	0		20
Chloroethane	ND	10	12	120		12	120		55-138	0		20
Trichlorofluoromethane	ND	10	11	110		10	100		62-150	10		20
1,1-Dichloroethene	ND	10	10	100		10	100		61-145	0		20
Carbon disulfide	2.2J	10	13	130		13	130		51-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	11	110		11	110		70-130	0		20
Methylene chloride	ND	10	9.6	96		9.5	95		70-130	1		20
Acetone	2.9J	10	13	130		13	130		58-148	0		20
trans-1,2-Dichloroethene	ND	10	9.9	99		9.8	98		70-130	1		20
Methyl Acetate	ND	10	7.2	72		7.4	74		70-130	3		20
Methyl tert butyl ether	ND	10	8.3	83		8.4	84		63-130	1		20
1,1-Dichloroethane	ND	10	10	100		9.7	97		70-130	3		20
cis-1,2-Dichloroethene	ND	10	9.7	97		9.6	96		70-130	1		20
Cyclohexane	ND	10	10	100		10	100		70-130	0		20
Chloroform	0.77	10	10	92		10	92		70-130	0		20
Carbon tetrachloride	ND	10	11	110		10	100		63-132	10		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
2-Butanone	ND	10	7.9	79		9.6	96		63-138	19		20
Benzene	0.50	10	10	95		10	95		70-130	0		20
1,2-Dichloroethane	ND	10	9.5	95		9.4	94		70-130	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1884827-6 WG1884827-7 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
Trichloroethene	ND	10	9.4	94		9.3	93		70-130	1		20
1,2-Dichloropropane	ND	10	9.6	96		9.3	93		70-130	3		20
Bromodichloromethane	ND	10	9.6	96		9.4	94		67-130	2		20
cis-1,3-Dichloropropene	ND	10	8.7	87		8.6	86		70-130	1		20
Toluene	ND	10	9.7	97		9.6	96		70-130	1		20
Tetrachloroethene	ND	10	10	100		10	100		70-130	0		20
4-Methyl-2-pentanone	ND	10	7.7	77		7.4	74		59-130	4		20
trans-1,3-Dichloropropene	ND	10	7.4	74		7.5	75		70-130	1		20
1,1,2-Trichloroethane	ND	10	8.8	88		9.0	90		70-130	2		20
Dibromochloromethane	ND	10	8.6	86		8.7	87		63-130	1		20
1,2-Dibromoethane	ND	10	8.8	88		8.9	89		70-130	1		20
2-Hexanone	ND	10	7.3	73		7.4	74		57-130	1		20
Chlorobenzene	ND	10	9.4	94		9.4	94		75-130	0		20
Ethylbenzene	ND	10	9.8	98		9.6	96		70-130	2		20
p/m-Xylene	ND	20	20	100		20	100		70-130	0		20
o-Xylene	ND	20	19	95		19	95		70-130	0		20
Styrene	ND	20	18	90		18	90		70-130	0		20
Bromoform	ND	10	7.4	74		7.4	74		54-136	0		20
Isopropylbenzene	ND	10	9.3	93		9.2	92		70-130	1		20
1,1,2,2-Tetrachloroethane	ND	10	8.4	84		8.1	81		67-130	4		20
1,3-Dichlorobenzene	ND	10	9.1	91		9.1	91		70-130	0		20
1,4-Dichlorobenzene	ND	10	9.1	91		9.2	92		70-130	1		20
1,2-Dichlorobenzene	ND	10	9.0	90		9.0	90		70-130	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING

Project Number: 21010216

Lab Number: L2407286

Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1884827-6 WG1884827-7 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
1,2-Dibromo-3-chloropropane	ND	10	7.2	72		7.5	75		41-144	4		20
1,2,4-Trichlorobenzene	ND	10	8.6	86		8.7	87		70-130	1		20
1,2,3-Trichlorobenzene	ND	10	8.9	89		8.8	88		70-130	1		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	103		102		70-130
Toluene-d8	100		101		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1884841-6 WG1884841-7 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
1,1,2,2-Tetrachloroethane	ND	0.1	0.089	89		0.087	87		70-130	2		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		101		70-130
4-Bromofluorobenzene	93		93		70-130

SEMIVOLATILES

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01
Client ID: TMC-OUTLET
Sample Location: TMC

Date Collected: 02/08/24 12:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 14:33
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	0.88	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01 Date Collected: 02/08/24 12:00

Client ID: TMC-OUTLET Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.56	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	0.50	J	ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	70		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-01
Client ID: TMC-OUTLET
Sample Location: TMC

Date Collected: 02/08/24 12:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 15:00
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Pentachlorophenol	0.15		ug/l	0.10	0.01	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	74		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02
Client ID: TMC-TM04
Sample Location: TMC

Date Collected: 02/08/24 12:10
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 15:50
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	0.63	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02 Date Collected: 02/08/24 12:10

Client ID: TMC-TM04 Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.48	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	47		23-120
2-Fluorobiphenyl	42		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	47		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-02
Client ID: TMC-TM04
Sample Location: TMC

Date Collected: 02/08/24 12:10
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 16:06
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Pentachlorophenol	0.12		ug/l	0.10	0.01	1
Benzo(a)anthracene	0.02	J	ug/l	0.05	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	45		15-120
2,4,6-Tribromophenol	65		10-120
4-Terphenyl-d14	53		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03
Client ID: TMC-BEND
Sample Location: TMC

Date Collected: 02/08/24 12:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 16:16
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03 Date Collected: 02/08/24 12:20

Client ID: TMC-BEND Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	63		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-03
Client ID: TMC-BEND
Sample Location: TMC

Date Collected: 02/08/24 12:20
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 16:23
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Pentachlorophenol	0.18		ug/l	0.10	0.01	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	71		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04
Client ID: TMC-RAIL-BRIDGE
Sample Location: TMC

Date Collected: 02/08/24 12:30
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 16:42
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	1.4	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04 Date Collected: 02/08/24 12:30

Client ID: TMC-RAIL-BRIDGE Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	62		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-04
Client ID: TMC-RAIL-BRIDGE
Sample Location: TMC

Date Collected: 02/08/24 12:30
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 16:39
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Pentachlorophenol	0.16		ug/l	0.10	0.01	1
Benzo(a)anthracene	0.02	J	ug/l	0.05	0.02	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	0.01	J	ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	71		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05
Client ID: DUP
Sample Location: TMC

Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 02/14/24 17:08
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzaldehyde	ND		ug/l	5.0	0.53	1
Phenol	ND		ug/l	5.0	0.57	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Acetophenone	ND		ug/l	5.0	0.53	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Nitrobenzene	ND		ug/l	1.4	0.77	1
Isophorone	ND		ug/l	5.0	1.2	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
Naphthalene	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	3.7	1.1	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Caprolactam	ND		ug/l	10	3.3	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Biphenyl	ND		ug/l	2.0	0.46	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1

Project Name: TMC SW SAMPLING **Lab Number:** L2407286

Project Number: 21010216 **Report Date:** 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05 Date Collected: 02/08/24 00:00

Client ID: DUP Date Received: 02/08/24

Sample Location: TMC Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/l	2.0	0.46	1
Acenaphthene	ND		ug/l	2.0	0.53	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Fluorene	ND		ug/l	2.0	0.41	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenanthrene	0.48	J	ug/l	2.0	0.33	1
Anthracene	ND		ug/l	2.0	0.33	1
Carbazole	ND		ug/l	2.0	0.49	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Fluoranthene	ND		ug/l	2.0	0.26	1
Pyrene	ND		ug/l	2.0	0.28	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Chrysene	ND		ug/l	1.4	0.34	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	61		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

SAMPLE RESULTS

Lab ID: L2407286-05
Client ID: DUP
Sample Location: TMC

Date Collected: 02/08/24 00:00
Date Received: 02/08/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 16:56
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Pentachlorophenol	0.14		ug/l	0.10	0.01	1
Benzo(a)anthracene	ND		ug/l	0.05	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	73		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884636-1					
Benzaldehyde	ND		ug/l	5.0	0.53
Phenol	ND		ug/l	5.0	0.57
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chlorophenol	ND		ug/l	2.0	0.48
2-Methylphenol	ND		ug/l	5.0	0.49
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Acetophenone	ND		ug/l	5.0	0.53
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
Hexachloroethane	ND		ug/l	2.0	0.58
Nitrobenzene	ND		ug/l	1.4	0.77
Isophorone	ND		ug/l	5.0	1.2
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
Naphthalene	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	3.7	1.1
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Caprolactam	ND		ug/l	10	3.3
2-Methylnaphthalene	ND		ug/l	2.0	0.45
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
1,2,4,5-Tetrachlorobenzene	ND		ug/l	1.7	0.44
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Biphenyl	ND		ug/l	2.0	0.46
2-Chloronaphthalene	ND		ug/l	2.0	0.44
2-Nitroaniline	ND		ug/l	5.0	0.50
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Acenaphthylene	ND		ug/l	2.0	0.46

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884636-1					
Acenaphthene	ND		ug/l	2.0	0.53
2,4-Dinitrophenol	ND		ug/l	20	6.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84
Diethyl phthalate	ND		ug/l	5.0	0.38
Fluorene	ND		ug/l	2.0	0.41
4-Nitroaniline	ND		ug/l	5.0	0.80
NDPA/DPA	ND		ug/l	2.0	0.42
Hexachlorobenzene	ND		ug/l	2.0	0.46
Pentachlorophenol	ND		ug/l	10	1.8
Phenanthrene	ND		ug/l	2.0	0.33
Anthracene	ND		ug/l	2.0	0.33
Carbazole	ND		ug/l	2.0	0.49
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Fluoranthene	ND		ug/l	2.0	0.26
Pyrene	ND		ug/l	2.0	0.28
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Chrysene	ND		ug/l	1.4	0.34
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Benzo(ghi)perylene	ND		ug/l	2.0	0.30

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 02/14/24 10:39
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1884636-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	87		41-149

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 02/14/24 14:44
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 02/13/24 09:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1884642-1					
Pentachlorophenol	ND		ug/l	0.10	0.01
Benzo(a)anthracene	ND		ug/l	0.05	0.02
Benzo(b)fluoranthene	ND		ug/l	0.05	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Dibenzo(a,h)anthracene	ND		ug/l	0.05	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	89		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884636-2 WG1884636-3								
Benzaldehyde	61		57		40-140	7		30
Phenol	56		54		12-110	4		30
Bis(2-chloroethyl)ether	64		62		40-140	3		30
2-Chlorophenol	70		68		27-123	3		30
2-Methylphenol	70		70		30-130	0		30
Bis(2-chloroisopropyl)ether	64		60		40-140	6		30
Acetophenone	73		71		39-129	3		30
n-Nitrosodi-n-propylamine	73		65		29-132	12		30
3-Methylphenol/4-Methylphenol	75		74		30-130	1		30
Hexachloroethane	64		46		40-140	**33**	Q	30
Nitrobenzene	72		69		40-140	4		30
Isophorone	74		71		40-140	4		30
2,4-Dimethylphenol	79		75		30-130	5		30
Bis(2-chloroethoxy)methane	73		69		40-140	6		30
2,4-Dichlorophenol	81		77		30-130	5		30
Naphthalene	77		59		40-140	26		30
4-Chloroaniline	69		66		40-140	4		30
Hexachlorobutadiene	64		46		40-140	**33**	Q	30
Caprolactam	33		36		10-130	9		30
2-Methylnaphthalene	68		61		40-140	11		30
Hexachlorocyclopentadiene	49		46		40-140	6		30
1,2,4,5-Tetrachlorobenzene	71		61		2-134	15		30
2,4,6-Trichlorophenol	81		80		30-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING

Project Number: 21010216

Lab Number: L2407286

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884636-2 WG1884636-3								
2,4,5-Trichlorophenol	86		83		30-130	4		30
Biphenyl	75		66		40-140	13		30
2-Chloronaphthalene	74		65		40-140	13		30
2-Nitroaniline	84		77		52-143	9		30
2,6-Dinitrotoluene	81		72		40-140	12		30
Acenaphthylene	76		70		45-123	8		30
Acenaphthene	71		65		37-111	9		30
2,4-Dinitrophenol	68		73		20-130	7		30
2,4-Dinitrotoluene	77		73		48-143	5		30
2,3,4,6-Tetrachlorophenol	81		74		54-145	9		30
Diethyl phthalate	74		70		40-140	6		30
Fluorene	69		66		40-140	4		30
4-Nitroaniline	70		71		51-143	1		30
NDPA/DPA	71		70		40-140	1		30
Hexachlorobenzene	75		67		40-140	11		30
Pentachlorophenol	80		73		9-103	9		30
Phenanthrene	75		66		40-140	13		30
Anthracene	75		68		40-140	10		30
Carbazole	78		69		55-144	12		30
Di-n-butylphthalate	82		73		40-140	12		30
Fluoranthene	76		70		40-140	8		30
Pyrene	79		70		26-127	12		30
3,3'-Dichlorobenzidine	62		59		40-140	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING

Project Number: 21010216

Lab Number: L2407286

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1884636-2 WG1884636-3								
Benzo(a)anthracene	74		69		40-140	7		30
Chrysene	75		67		40-140	11		30
Bis(2-ethylhexyl)phthalate	86		78		40-140	10		30
Di-n-octylphthalate	79		73		40-140	8		30
Benzo(b)fluoranthene	80		72		40-140	11		30
Benzo(k)fluoranthene	74		67		40-140	10		30
Benzo(a)pyrene	74		65		40-140	13		30
Indeno(1,2,3-cd)pyrene	72		66		40-140	9		30
Dibenzo(a,h)anthracene	74		67		40-140	10		30
Benzo(ghi)perylene	75		67		40-140	11		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	61		57		21-120
Phenol-d6	53		51		10-120
Nitrobenzene-d5	67		65		23-120
2-Fluorobiphenyl	67		62		15-120
2,4,6-Tribromophenol	80		78		10-120
4-Terphenyl-d14	74		65		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING

Project Number: 21010216

Lab Number: L2407286

Report Date: 02/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1884642-2 WG1884642-3								
Pentachlorophenol	64		67		9-103	5		40
Benzo(a)anthracene	64		63		40-140	2		40
Benzo(b)fluoranthene	64		69		40-140	8		40
Benzo(k)fluoranthene	69		62		40-140	11		40
Benzo(a)pyrene	63		63		40-140	0		40
Indeno(1,2,3-cd)pyrene	73		68		40-140	7		40
Dibenzo(a,h)anthracene	75		71		40-140	5		40
Benzo(ghi)perylene	71		66		40-140	7		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	50		54		21-120
Phenol-d6	44		48		10-120
Nitrobenzene-d5	68		71		23-120
2-Fluorobiphenyl	58		59		15-120
2,4,6-Tribromophenol	67		78		10-120
4-Terphenyl-d14	64		66		41-149

Matrix Spike Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1884636-4 WG1884636-5 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
Benzaldehyde	ND	18.2	9.4	52		10	55		40-140	6		30
Phenol	ND	18.2	9.4	52		10	55		12-110	6		30
Bis(2-chloroethyl)ether	ND	18.2	11	61		12	66		40-140	9		30
2-Chlorophenol	ND	18.2	12	66		13	72		27-123	8		30
2-Methylphenol	ND	18.2	11	61		12	66		30-130	9		30
Bis(2-chloroisopropyl)ether	ND	18.2	10	55		11	61		40-140	10		30
Acetophenone	ND	18.2	12	66		14	77		39-129	15		30
n-Nitrosodi-n-propylamine	ND	18.2	12	66		13	72		29-132	8		30
3-Methylphenol/4-Methylphenol	ND	18.2	13	72		15	83		30-130	14		30
Hexachloroethane	ND	18.2	9.8	54		10	55		40-140	2		30
Nitrobenzene	ND	18.2	13	72		14	77		40-140	7		30
Isophorone	ND	18.2	12	66		14	77		40-140	15		30
2,4-Dimethylphenol	ND	18.2	12	66		13	72		30-130	8		30
Bis(2-chloroethoxy)methane	ND	18.2	11	61		13	72		40-140	17		30
2,4-Dichlorophenol	ND	18.2	13	72		14	77		30-130	7		30
Naphthalene	0.88J	18.2	10	55		11	61		40-140	10		30
4-Chloroaniline	ND	18.2	11	61		8.9	49		40-140	21		30
Hexachlorobutadiene	ND	18.2	9.2	51		9.7	53		40-140	5		30
Caprolactam	ND	18.2	6.5J	36		6.8J	37		10-130	5		30
2-Methylnaphthalene	ND	18.2	10	55		11	61		40-140	10		30
Hexachlorocyclopentadiene	ND	18.2	9.3J	51		10J	55		40-140	7		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	10	55		12	66		2-134	18		30
2,4,6-Trichlorophenol	ND	18.2	13	72		14	77		30-130	7		30

Matrix Spike Analysis
Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1884636-4 WG1884636-5 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
2,4,5-Trichlorophenol	ND	18.2	14	77		14	77		30-130	0		30
Biphenyl	ND	18.2	12	66		13	72		40-140	8		30
2-Chloronaphthalene	ND	18.2	11	61		12	66		40-140	9		30
2-Nitroaniline	ND	18.2	4.2J	**23**	Q	4.8J	**26**	Q	52-143	13		30
2,6-Dinitrotoluene	ND	18.2	13	72		14	77		40-140	7		30
Acenaphthylene	ND	18.2	12	66		12	66		45-123	0		30
Acenaphthene	ND	18.2	12	66		12	66		37-111	0		30
2,4-Dinitrophenol	ND	18.2	14J	77		14J	77		20-130	0		30
2,4-Dinitrotoluene	ND	18.2	12	66		13	72		48-143	8		30
2,3,4,6-Tetrachlorophenol	ND	18.2	12	66		13	72		54-145	8		30
Diethyl phthalate	ND	18.2	12	66		12	66		40-140	0		30
Fluorene	ND	18.2	11	61		12	66		40-140	9		30
4-Nitroaniline	ND	18.2	1.6J	**9**	Q	1.6J	**9**	Q	51-143	0		30
NDPA/DPA	ND	18.2	11	61		11	61		40-140	0		30
Hexachlorobenzene	ND	18.2	11	61		12	66		40-140	9		30
Pentachlorophenol	ND	18.2	14	77		14	77		9-103	0		30
Phenanthrene	0.56J	18.2	12	66		12	66		40-140	0		30
Anthracene	ND	18.2	11	61		12	66		40-140	9		30
Carbazole	0.50J	18.2	12	66		13	72		55-144	8		30
Di-n-butylphthalate	ND	18.2	13	72		14	77		40-140	7		30
Fluoranthene	ND	18.2	12	66		12	66		40-140	0		30
Pyrene	ND	18.2	12	66		13	72		26-127	8		30
3,3'-Dichlorobenzidine	ND	18.2	ND	**0**	Q	ND	**0**	Q	40-140	NC		30

Matrix Spike Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1884636-4 WG1884636-5 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
Benzo(a)anthracene	ND	18.2	12	66		13	72		40-140	8		30
Chrysene	ND	18.2	12	66		12	66		40-140	0		30
Bis(2-ethylhexyl)phthalate	ND	18.2	15	83		16	88		40-140	6		30
Di-n-octylphthalate	ND	18.2	14	77		15	83		40-140	7		30
Benzo(b)fluoranthene	ND	18.2	12	66		13	72		40-140	8		30
Benzo(k)fluoranthene	ND	18.2	12	66		13	72		40-140	8		30
Benzo(a)pyrene	ND	18.2	11	61		12	66		40-140	9		30
Indeno(1,2,3-cd)pyrene	ND	18.2	12	66		12	66		40-140	0		30
Dibenzo(a,h)anthracene	ND	18.2	12	66		12	66		40-140	0		30
Benzo(ghi)perylene	ND	18.2	12	66		12	66		40-140	0		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	72		78		10-120
2-Fluorobiphenyl	58		63		15-120
2-Fluorophenol	55		60		21-120
4-Terphenyl-d14	62		64		41-149
Nitrobenzene-d5	63		67		23-120
Phenol-d6	48		50		10-120

Matrix Spike Analysis

Batch Quality Control

Project Name: TMC SW SAMPLING
Project Number: 21010216
Lab Number: L2407286
Report Date: 02/15/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1884642-4 WG1884642-5 QC Sample: L2407286-01 Client ID: TMC-OUTLET												
Pentachlorophenol	0.15	18.2	15	82		13	71		9-103	14		40
Benzo(a)anthracene	ND	18.2	12	66		10	55		40-140	18		40
Benzo(b)fluoranthene	ND	18.2	13	72		11	61		40-140	17		40
Benzo(k)fluoranthene	ND	18.2	14	77		12	66		40-140	15		40
Benzo(a)pyrene	ND	18.2	12	66		11	61		40-140	9		40
Indeno(1,2,3-cd)pyrene	ND	18.2	12	66		12	66		40-140	0		40
Dibenzo(a,h)anthracene	ND	18.2	13	72		12	66		40-140	8		40
Benzo(ghi)perylene	ND	18.2	11	61		12	66		40-140	9		40

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	91		75		10-120
2-Fluorobiphenyl	64		57		15-120
2-Fluorophenol	57		51		21-120
4-Terphenyl-d14	76		61		41-149
Nitrobenzene-d5	80		69		23-120
Phenol-d6	53		45		10-120

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407286-01A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01A1	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01A2	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01B	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01B1	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01B2	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01C	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01C1	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01C2	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-01D	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-01D1	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-01D2	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-01E	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-01E1	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-01E2	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-02A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-02B	Vial HCl preserved	A	NA	NA	3.5	Y	Absent		ARCHIVE()
L2407286-02C	Vial HCl preserved	A	NA	NA	3.5	Y	Absent		ARCHIVE()
L2407286-02D	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-02E	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-03A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-03B	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-03C	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)

*Values in parentheses indicate holding time in days

Project Name: TMC SW SAMPLING
Project Number: 21010216

Lab Number: L2407286
Report Date: 02/15/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2407286-03D	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-03E	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-04A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-04B	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-04C	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-04D	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-04E	Amber 250ml unpreserved	A	9	9	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-05A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-05B	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-05C	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-05D	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-05E	Amber 250ml unpreserved	A	10	10	3.5	Y	Absent		PA-8270SIM-LVI(7),PA-8270-LVI(7)
L2407286-06A	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-06B	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-06C	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2407286-06D	Vial HCl preserved	A	NA		3.5	Y	Absent		PA-8260-SIM(14),PA-8260(14)

Container Comments

L2407286-02B	container received empty
L2407286-02C	container received empty

*Values in parentheses indicate holding time in days

Project Name:	TMC SW SAMPLING	**Lab Number:**	L2407286
Project Number:	21010216	**Report Date:**	02/15/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	TMC SW SAMPLING	**Lab Number:**	L2407286
Project Number:	21010216	**Report Date:**	02/15/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 2/09/24 MK 2/10

ALPHA Job #: L2407286

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Tradepoint Atlantic
Address:
Phone:
Fax:
Email: JBarnes@armgroup.net KGuiles@armgroup.net
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: TMC SW Sampling
Project Location: TMC
Project #: 21010216
Project Manager:
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (lab confirmation if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 8260	SVOC, 8270 SIM PAHs										Sample Specific Comments	Total # Bottles
07286-01	TMC-Outlet	2/8/24	1200	wt	JMB	x	x	x									MS/MSD	15
02	TMC-TM04	2/8/24	1210	wt	JMB	x	x	x										5
03	TMC-Bend	2/8/24	1220	wt	JMB	x	x	x										5
04	TMC-Rail-Bridge	2/8/24	1230	wt	JMB	x	x	x										5
05	dup	2/8/24	—	wt	JMB	x	x	x										5
06	trip blank	—	—	wt	—	x												4

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type																		
Preservative																		

2/9/24 0245
2/9/24 0245

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible] ARM	2/9/24 1500	[illegible] PACE	2/8/24 1530
[illegible] PACE	2/9/24 1800	[illegible]	2/8/24 1800
[illegible]	2/9/24 2100	Anthony Green	FEB 08 2024 2271
Anthony Green	2/9/24 0245	[illegible]	2/9/24 0245

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)